

**EFFECTIVENESS OF SELECTED RELAXATION TECHNIQUES TO
REDUCE THE LEVEL OF STRESS AMONG SENIOR CITIZENS
RESIDING IN SELECTED OLD AGE HOME,
AT COIMBATORE.**

**A DISSERTATION SUBMITTED TO
THE TAMILNADU DR. MGR MEDICAL UNIVERSITY, CHENNAI
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
DEGREE OF MASTER OF SCIENCE IN NURSING**

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AT COIMBATORE.**

Certified Bonafide Project Work

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CHAPTER – I

INTRODUCTION

***Good Health is the pre requisite for good quality of life,
“Adding life to years’.***

- WHO (2007).

BACK GROUND OF THE STUDY

The ageing of the global population is one of the biggest challenges facing the world in the next few decades. It is also potentially a great Opportunity; as older people have a lot to contribute. It is widely assumed that the fall in numbers of older people in paid work is due to decline in functional capacity associated with ageing. More old people, over 60% live in developing countries.

Nandan.L., (2005)

Growing old in a society that has been obsessed with youth may have a critical impact on the mental health of many people. This situation has serious implications for psychiatric nursing.

Mary.C.Townsend.,(2006)

At any age, stress is a part of life, young and old alike have to face difficult situations and overcome obstacles. While young adults

struggle to establish a career, achieve financial security or juggle work and family demands, older people may face failing health or dwindling finances or simply the challenges of retaining their independence. Unfortunately, the body's natural defenses against stress gradually break down with age. But many seniors still manage to stay through their later years. "Successful seniors" tend to have few things in common.

- They stay connected to friends & family.
- They exercise and keep active and
- They find ways to both reduce and manage the stress in their lives.

But many of the seniors fail to fulfill this and because of ageing, the stress comes in two basic flavors, physical and emotional and both can be especially taxing for older people. The impacts of physical stress are clear. As people reach old age, wounds heal more slowly and cold becomes harder to shake because of poor immune system function. A 75 year old heart can be slow to respond to the demands of exercise.

Emotional stress is more subtle, and if it is chronic, the eventual consequences can be as harmful. Stress hormones (cortisol and adrenaline) provide energy and focus in the short term, but too much stress over too many years can throw a person's system off balance. Overload of stress hormone has been linked to many health problems,

including heart disease, high blood pressure and weakened immune functions. For older people already at heightened risk for these illnesses, managing stress is particularly important.

- Woolston.C., (2006)

Virgnia.S.,(2004) stated that “The negative effects of long term stress is one of the reason why some older adults show poor brain function and perform poorly in memory tests.”

Dr. Illango Ponnusami.,(2005), stated that “With increasing age, people are more susceptible to physical, psychological, social & emotional problems.” Elderly abuse is a very sensitive and delicate issue and is becoming very common in these days. It ranges from simple ignorance of their emotional needs to removing the aged forcefully from the house.

The body’s natural relaxation response is a powerful antidote to stress. Relaxation techniques such as deep breathing, visualization, progressive muscle relaxation, meditation, and yoga can help you activate this relaxation response. When practiced regularly, these activities lead to a reduction in your everyday stress levels and boost your feelings of joy and serenity. What’s more, they also serve a

protective quality by teaching you how to stay calm and collected in the face of life's curveballs.

Segal.J.,(2006)

NEED FOR STUDY

According to the booklet,"**Ageing and health program (2005)**, "There are currently 580 million people in the world who are aged 60 years or older. This figure is expected to rise to 1,000 million by 2020- a 75% increase compared with 50% of the population on the whole. Most of the older people over 60% of them live in developing countries. By 2020 there will be 1,000 million populations with over 700 million in the developing world.

According to **Central Social law and Authority department, (2003)**,in India the elderly population above 60 years was 1 crore and 20 lakhs in 1901, 2 crore in 1950, 5 crore in 1991 and will be 10 crore in 2013 that makes 10% of total population.

Dr.Ramachandra., (2006), stated that in India it has been reported that at present there are 77 million elderly people and the number is expected to be 177 million in the next 2 and half decades, respectively **Sreevani.R., (2006)** also, stated that in India life expectancy at birth has increased by 20 years in the past 5 decades. The average life span today

is 66 years. Today there are about 77 million people in India aged above 60.

In Karnataka out of the total population of 5.5 crores, 8% are elderly citizens.

The population in the age group of 60 years and above in Tamilnadu is 7.5% of the total population of which the elderly population in urban and rural areas of Tamilnadu is 7% and 7.7% respectively.

(Sharmila.M., 2003)

According to **Census report of Tamilnadu(2001)**, in India the total number of population above 60 years of age group is 77 million. In Tamilnadu the total number of population above the age group of 60 years is 55, 07,400. Among 32, 22,748 of senior citizens are living in rural area and 22, 84, 652 of senior citizens are living in urban area. 2, 87,089 of senior citizens are living in Erode district.

According to **National Centre for Health Statistics (2004)** the majority of individuals age 65 or older live alone, with a spouse, or with relatives. At any time, fewer than 5% of people in this age group live in institution. This percentage increases dramatically with age, ranging

from 1.1% for persons 65 to 74 years, to 4.3% for persons 75 to 84 years, and 18.3% for persons 85 and older.

There are 855 old age homes in India and 94 old age homes in Tamilnadu. **The Madras institute of ageing survey (1995)** also reported that the numbers of elderly living in old age homes in India are 21,214 and 3,876 in Tamilnadu. The statement from **Help age India (2005)** “For many older people who don’t have a roof over their heads or a place to call their own, Help age has provided support to 253 old age homes in India. A rising trend is being noticed among the urban elderly also, who move out of their homes and into habitats especially catering to their needs, in order to spend their later years in comfort.”

Swamy.P, (2005), concluded that, “Decreased loss of self image occurs due to change of body appearance, loss of control of chronic pain, fear, anxiety, alcohol, apathy, depression, hopelessness, helplessness, sense of powerlessness etc. Thus there is a need for building positive attitude towards life, improving self esteem, physical and mental health, need for improving functional ability, pride in appearance and need for creating sense of hopefulness and wrathfulness.

Many negative stereotypes color the perspective on aging in the U.S. Ideas that elderly individuals are always tired or sick, slow and forgetful, isolated and lonely, unproductive, and angry determine the way younger individuals relate to the elderly in the society. Increasing disregard for the elderly has resulted in a type of segregation, as aging individuals' voluntarily seek out or are involuntarily placed in special residences for the aged.

Stress is likely to have greater negative impact on older people.

- Chows .D ., (2008)

Lillypet.S,(2001), conducted a study to assess the needs of the elderly in selected urban community at **Dharapuram**, revealed that **65%** of elderly perceived the **psychological need** as the second important need.

Martin.M, et. al (2001), conducted a study on age differences in stress, social resources and well being middle and old age, revealed that there was a strong effect of stress on well being i.e. Health related stress and similar level of social resources in the older group.

Sreevani.R., (2005) stated that, Many older adults undergo painful life-style changes including retirement and relocation, loss of spouses, friends and at time even children. These stressful events may

lead to depression or may worsen existing mental and physical illnesses”.

Patel.A and Broota.A., (2000) in their study emphasized the needs and problem of the elderly. In this context they have critically evaluated the need for a comprehensive investigation on the status of elderly in India. Numerous studies indicate that the effect of industrialization and urbanization has weakened the traditional joint family setup where the elder persons are least or not wanted in the social setup of a family or the society at large resulting in loneliness and death anxiety.

Kavitha.K. (2000) did a comparative study on the quality of life among senior citizens living in home for the aged & family set up. The objectives of the study were to describe among the senior citizens in home for aged to compare with senior citizens regarding family set up. The sample size was 100, and the research approach was a comparative survey. The above mentioned study was found that the overall mean score regarding QOL was found higher among senior citizens living in family setup 64.37% than the senior citizens living in home for the aged.

Naik.N.,(2007), conducted a comparative study to assess emotional well-being of senior citizens staying in old age home versus senior citizens staying in family at Pune city. She concluded that maximum 90% of the senior citizens from old age home are under

borderline emotional wellbeing, 5% of them under negative emotional wellbeing, rest 5% of them under positive emotional wellbeing, where as among senior citizens staying with family 92% were under positive emotional wellbeing.

Potter and Perry (2005) stated that “Stress management includes regular exercise, support system, time management, guided imaginary and visualization, progressive muscle relaxation, etc, stressed people benefit from education and practice of new coping skills.”

Benson.H.,(2004), states that “Meditation decreases oxygen consumption, heart rate, respiratory rate and blood pressure, and increases the intensity of alpha, beta and delta waves, that decreases the psychological changes occurring during the stress response”.

Dr. Karobi Das.(2006), stated that ,”Give at least 20 minutes to your self. As you brush your teeth daily to avoid decay, give time for your self even if you haven’t finished the jobs for the day. Do simple exercise (physical) on a regular basis. Through stretching (eg) limb exercise, forward and backward bending, spinal and abdominal exercise removes muscle tension, aches and pains, thus the body becomes more flexible. Practice breathing exercises to increase circulation of blood all over the body especially to brain and for better concentration”.

Mary ann Boyd (2008), states that," Stress responses varying from one person to another, and makes the person to recognize that acute stress is more easier than chronic stress. From the assessment of data the nurse can determine any illness. The intensity of the stress response, and the effectiveness of coping strategies."

Smatra.M., (2000) had done a study to assess the relaxation training as a holistic nursing intervention. Relaxation technique can be employed by nurse to reduce the negative effects of stress while promoting healing and self efficacy. Holistic nursing approach supports an innovative model of learning for nursing practices.

Senior citizens are a treasure to a society. They have worked hard all these years for the development of the nation as well as the community. They possess a vast experience in different walks of life. But now because of various reasons the senior citizens are psychologically and emotionally assaulted which make them to institutionalize which have a greater impact on their psychological well being, resulting in stress. So the researcher realized that senior citizen in old age home are in great need of social support. The healing strategy such as yoga therapy and some relaxation techniques may helpful in improving their quality of life in terms of reducing stress.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of selected relaxation techniques to reduce the level of stress among senior citizens residing in selected old age home, at Coimbatore.

OBJECTIVES

1. To assess the pre test level of stress among senior citizens.
2. To assess the post test level of stress among senior citizens.
3. To compare the pre test and post test level of stress among senior citizens.
4. To associate the post test level of stress with their selected demographic variables among senior citizens.

OPERATIONAL DEFINITION

Effectiveness

- It means producing the intended result.
- In this study effectiveness refers to reducing in the level of stress as determined by significant difference in pre and post test stress scores among senior citizens.

Selected Relaxation Technique

A relaxation technique (also known as relaxation training) is any method, process, procedure, or activity that helps a person to relax; to attain a state of increased calmness; or otherwise reduce levels of anxiety, stress or tension.

In this study, the researcher selected pranayama therapy, and aerobic exercise as relaxation techniques.

Pranayama Therapy.

Pranayama, as traditionally conceived, involves much more than merely breathing for relaxation. The word pranayama consists of two parts: **prana** and **ayama**. **Ayama** means stretch, extension, expansion, length, breadth, regulation, prolongation, restraint and control and describes the action of pranayama. **Prana** is energy, when the self-energizing force embraces the body with extension, expansion and control, it is pranayama.

Aerobic Exercises

The **American College of Sports Medicine** (ACSM) defines aerobic exercise as "any activity that uses large muscle groups, can be maintained continuously, and is rhythmic in nature." It is a type of exercise that overloads the heart and lungs and causes them to work harder than at rest.

Through prepared instructional material-CD with demonstration the researcher guides the senior citizens to do the selected relaxation techniques daily 15-20 minutes in the morning and in the evening for 15 days.

Stress

Stress is defined as the physiological or psychological tension that threatens homeostasis or a person's psychological equilibrium.

In this study, stress refers to the disturbances in physical, emotional, behavioral, and psychological well being which was measured by modified stress assessment rating scale and its score.

Senior Citizens

Older adults who are residing in the old age home above 50 years of age in both sexes.

Old Age Home

The organization or the partial nursing home which provides the roof and living support for the homeless senior citizens.

HYPOTHESES

H₁- The mean post test stress score is significantly lower than the mean pre test stress score among senior citizens.

H₂- There will be a significant association between the post test stress Score with their selected demographic variables among senior citizens.

ASSUMPTION

- All senior citizens residing in old age home may have stress.
- Selected relaxation techniques are helpful in reducing stress.

DELIMITATION

- The data collection period is limited to 4 weeks only.
- The sample of the study is restricted to 60.

PROJECTED OUTCOME

Practicing selected relaxation techniques regularly can improve psychological well being among senior citizens which in turn improves their quality of life. Developing positive attitude towards practicing selected relaxation techniques will make senior citizens to initiate others also to practice.

CONCEPTUAL FRAME WORK

MODIFIED ROY ADAPTATION MODEL

Roy (1984) states that the recipient of nursing care may be the person, a family, a group of community, or a society. Each is considered by the nurse as a holistic adaptive system. According to **Roy** “a person is bio-psycho-social being, in constant interaction with a changing environment”. The person as living system is whole made up of parts or subsystems that function as unity for some purpose”.

The idea of an adaptive system combines the concepts of system and adaptation as follows.

SYSTEM

In her model Roy conceptualizes the person is a holistic perspective. Individual aspects of parts act together to form a unified being. Additionally, on living systems, persons are in constant interaction with their environment. Between the system and the environment occurs an exchange of information, matter and energy. Characteristics of a system include inputs controls and feed back.

In this study, the system is senior citizens and the environment is old age home. Both will have constant interaction with each other.

INPUT

The adaptive system has inputs of stimuli and adaptation level, out put as behavioral responses that serve as feed back and control and process known as coping mechanisms.

Focal stimulus: The internal or external stimulus most immediately confronting the person, the object or event that attracts one's attention a degree of change that precipitates adaptive behavior, stimulus most immediately confronting the person the one to which he must make an adaptive response, stressor.

Contextual stimuli are all other stimuli of the person's internal and external world than can be identified as having a positive or negative influence on the situation.

Residual stimuli are those internal (or) external factors having an indeterminate effect on the person's behavior that effect has not (or) cannot be validated. Environmental factors within (or) outside the person whose effects in the current situation are unclear, possible yet uncertain, influencing stimuli, includes beliefs, attitudes, experience (or) trails, knowledge level, strengths and / or limitations.

In this study demographic variables of the senior citizens such as age, sex, reason for residing in old age home and the duration of residing in old age home, number of children(internal factors) and religion, education, supportive system, spirituality (external factor)

precipitates the coping mechanism of the senior citizens which is reflected either as adaptive or maladaptive responses. Because of internal and external factors interaction most of the senior citizens will have stress and reduced coping abilities. Assessment of stress among the senior citizens had been done through modified stress assessment rating scale.

CONTROL PROCESS/COPING MECHANISMS.

Roy has used the term coping mechanism to describe control processes of the person as an adaptive system, that are called the “Regulator” and “Cognator”.

Regulator subsystem

A regulator is a subsystem coping mechanism which responds automatically through neural chemical endocrine processes.

Cognator subsystem.

A cognator is a subsystem of coping mechanism which responds through complex perception and information processing through learning, judgment and emotion.

In this study the maladaptive pattern of stress response alters both regulator and cognator subsystem. The changes in regulator subsystem can be noted as palpitation, shallow breathing, sweating, poor appetite, poor sleep pattern. The changes in cognator subsystem can be noted as reduced concentration, poor memory, irritability etc.

The imbalance of regulator and cognator subsystem because of maladaptive stress response was balanced by practicing selected relaxation technique. After assessing the stress through modified stress assessment rating scale the selected relaxation techniques such as pranayama therapy and aerobic exercise was given to the senior citizens.

EFFECTORS/ADAPTIVE MODES

Although cognator and regulator processes are essential to the adaptive responses of the person, these processes are not directly observable. The adaptive modes are the physiological self concept, role function and interdependence modes. By observing the person's behavior in relation to the adaptive modes, the nurse can identify adaptive or ineffective responses in situations of health & illness.

The four adaptive modes for assessment are as follows.

Physiological mode

The physiological mode represents physical response to environmental stimuli and properly involves the regulator subsystem. The basic need of this mode is physiologic integrity and is composed of the needs associated with oxygenation, nutrition, elimination, activity and rest and protection. The complex processes of this mode are associated with the senses, fluids and electrolytes, neurological function and endocrine functions.

In this study the adaptive responses in physiological mode is normal heart beat, normal breathing pattern, maintaining normal sleep and appetite.

Role function mode

It involves behaviour based on a person's position in society. It is dependent on how a person interacts with others in a given situation.

In this study it refers to reduction in irritability and anxiety so that the can able to concentrate better that aids in good decision making process. So that the person can to act appropriately in a given situation.

Self concept mode

The self concept mode relates to the basic need for psychic integrity. Its focus is on the psychological and spiritual aspects of the person.

In this study the adaptive response in self concept mode is increased self esteem, and decreased feeling of inadequacy.

Interdependent mode

Interdependent mode is where affect ional needs are met.

In this study the adaptive response in interdependent mode is to maintain social integrity.

OUT PUT AND FEED BACK

Adaptive responses are those that promote the integrity of the person. In this study practicing selected relaxation techniques may

increase the coping mechanisms which reflect in reduction of stress that is assessed through stress assessment rating scale. Senior citizens, who are having moderate and increased stress level will again practice selected relaxation techniques to reduce the level of stress under the guidance given by researcher following post test that makes them to practice regularly. Those who are exhibiting low level of stress also encouraged and motivated to practice selected relaxation technique continuously.

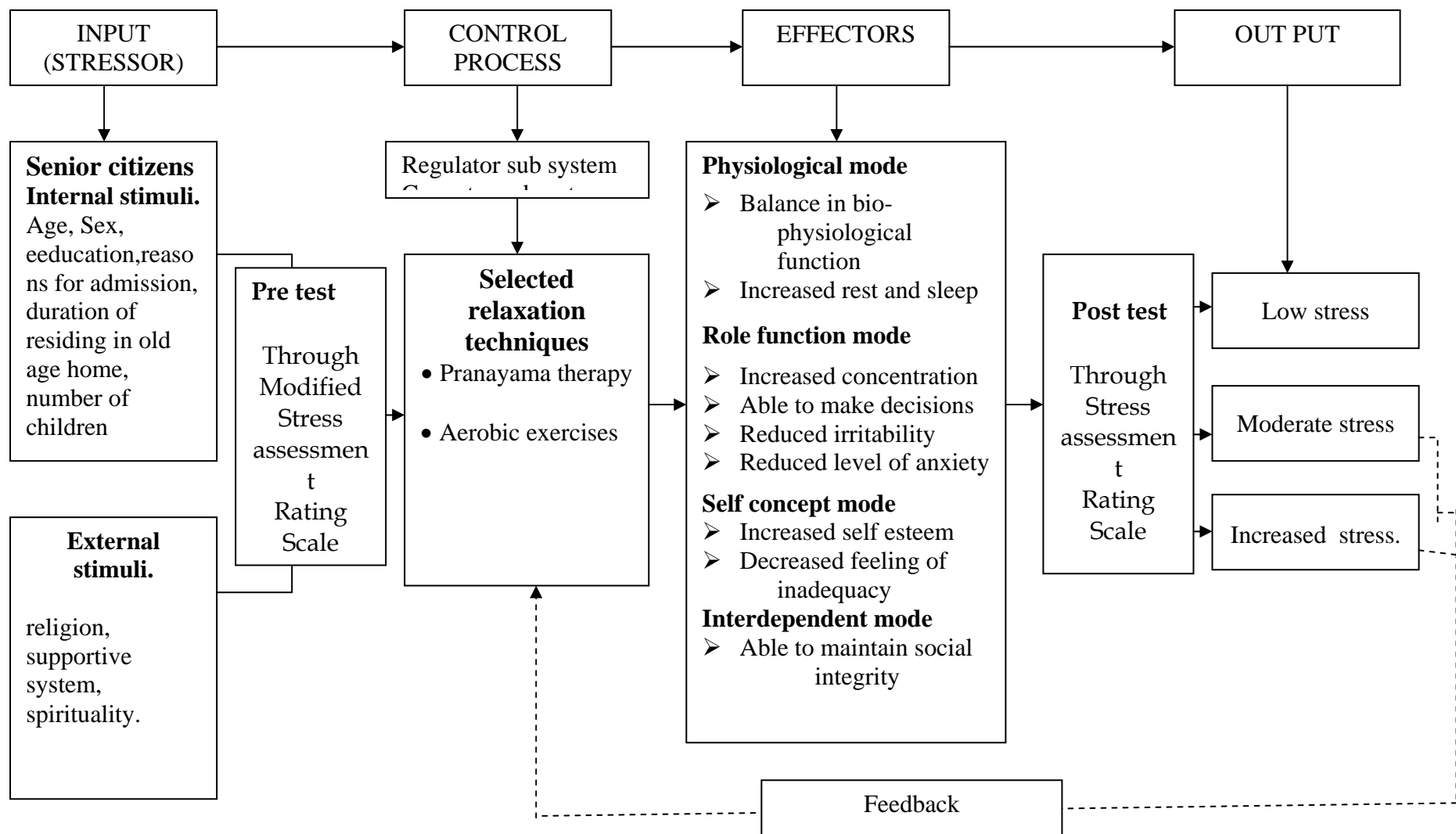


Fig: 1-CONCEPTUAL FRAME WORK BASED ON MODIFIED ROY'S ADAPTATION MODEL – (1961)

CHAPTER – II

REVIEW OF LITERATURE

This chapter consists of

Part – A

- Overview of ageing process and theories of ageing.
- Overview of stress and senior citizens

Part – B

Overview of Selected relaxation techniques.

Part – C

- Studies related to stress among senior citizens residing in old age home.
- Studies related to causes of stress among senior citizens residing in old age home.
- Studies related to effectiveness of selected relaxation techniques.

PART – A

AGEING PROCESS AND THEORIES OF AGEING

“Ageing is a Natural experience not a pathological process”

Ageing can be defined as the normal physical and behavioral changes that occur under normal environmental conditions as people mature and advance in age. It is a complex, multi dimensional phenomenon occurring at the organic, psychological and socio economic levels. Various factors influence the ageing process, heredity, nutrition, health status life experience, environmental activity and stress produce unique effects in each individual.

Many theories attempt to explain various aspects of ageing however no single theory to date explains the ageing process because individual's age differently based on their personal hereditary make up, environmental stressors and a host of other factors.

BIOLOGICAL THEORIES

Genetic Theory

According to genetic theory ageing is an involuntarily inherited process makeup that operates over time to alter cellular or tissue structures. Genetic theory includes DNA theory, error and fidelity theory, somatic mutation and glycogen theory. Genetic mutation, described under the error theory, also one thought to be responsible for ageing by causing organ decline as a result of self-perpetuating cellular mutation.

- **Wear and tear theory**

The wear and tear theory proposes that accumulation of metabolic waste products or nutrient deprivation damages DNA synthesis, leading to molecular and eventually organ malfunction proponents of this theory believe that the body wears and on a scheduled basis.

Environmental theory

According to this theory factors in the environment, such as industrial carcinogens, sunlight, trauma, infection and so forth, bring about changes in ageing.

- **Immunity theory**

The primary organs of the immune system, the thymus and bone marrow, are believed to be affected by the ageing process. The weight of the thymus decreases throughout adulthood. The level of thymus hormone declines after age 30 and is undetectable in the blood of persons greater than age 60 years. One hypothesis regarding the role of autoimmune reaction in the ageing process is that the body misidentified aged, irregular cells, as foreign agents and attacks them.

PSYCHOSOCIAL THEORIES

- **Personality theory**

Personality theories address aspects of psychological growth without meeting specific tasks or expectations of older adults. Jung developed a theory of adult personality as extroverted and introverted. He theorized that a balance between the two was necessary for good mental health. With decreasing demands and responsibilities of family and social roles, common in old age, Jung believed people becoming more introverted. In Jung's concept of inferiority the second half of life is described as having purpose of its own to develop self

awareness through reflective activity. Jung saw the last stage of life as a time when people taken an inventory of their lives a time of looking backward rather than forward.

Neugarten, Havighurst, and Tobin noted that increased inferiority is characteristic of aged persons and identified eight patterns of adjustments to ageing, namely integrated reorganizers, focused disengaged, armored (defended), Holding on constricted, passive dependent succor-seeking, Apathetic, unintegrated. They found that healthy aging depended not on the amount of social activity as individual has but, rather on how satisfied the individual is with that social activity.

- **Developmental tasks**

Developmental tasks are the challenges that must be met and adjustments that must be made to achieve successful ageing, Erikson, described these tasks of old age is integrity versus despair.

- **Disengagement theory**

This theory describes the process of withdrawal of elders from societal roles and responsibilities. Elders were said to be happy when social contacts diminished and responsibilities were assumed by a younger generation. The benefit to the elder is providing time for reflecting life's accomplishments and for coming to terms with unfulfilled expectations.

- **Activity theory**

Havighurst first wrote about the importance of remaining socially active to healthy adjustment to old age in 1952. Since, then, multiple studies have validated the positive relationship between maintaining meaningful integrations with others and physical and mental well being. These studies have shown that loss of role function in old age negatively affects life satisfaction.

- **Continuity theory**

This theory emphasis the individual's previously established coping abilities and personality as a basis for predicting how the person will adjust to the changes of aging. Basic personality traits are said to remain unchanged as individual ages. A person who enjoys the company of others and an active social life will continue to enjoy this life styles into old age. One who prefers solitude and a limited number of activities will most likely find satisfaction is a continuation of this life style. **Charlotte Eliopoulos, [1997]**

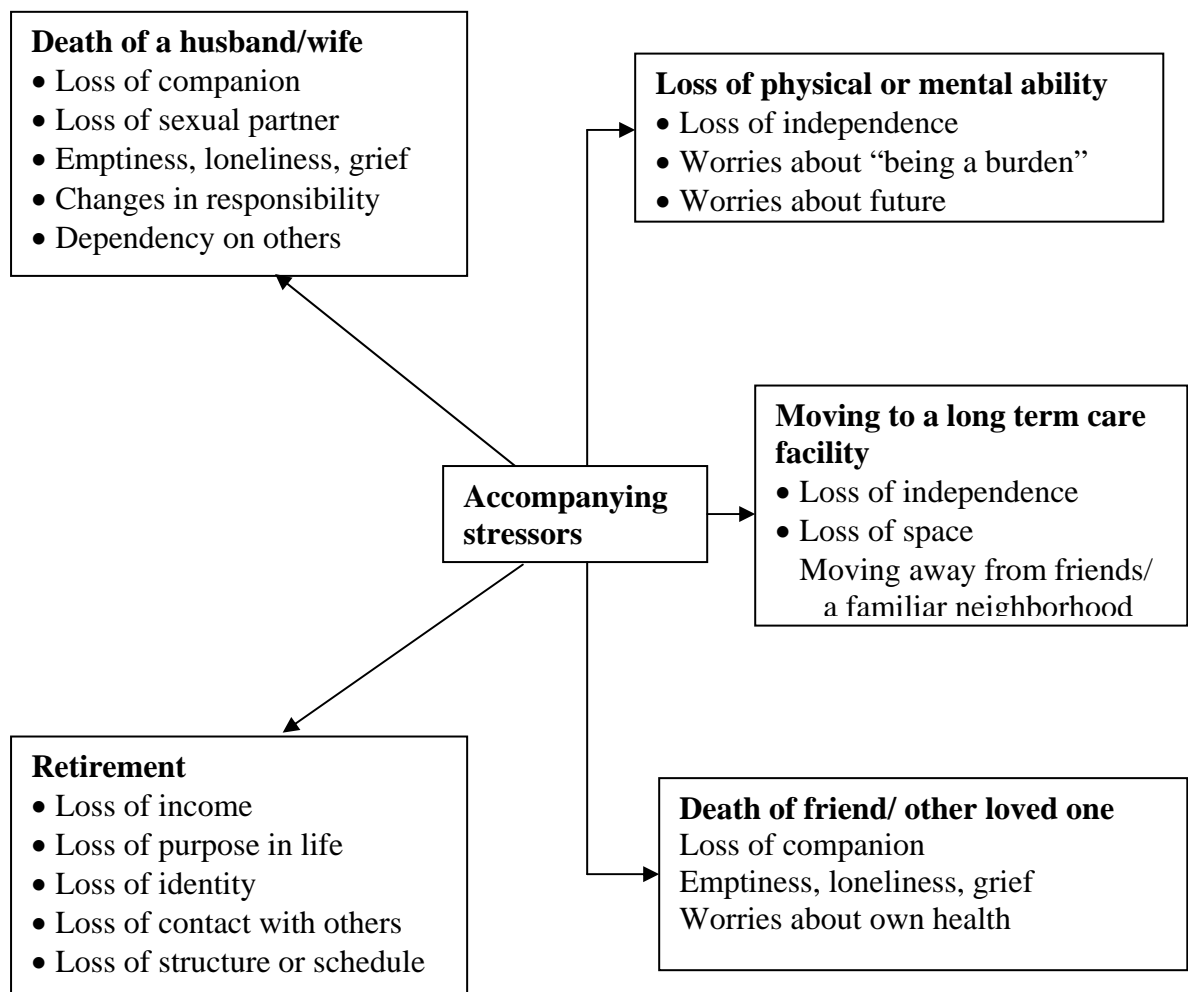
STRESS AND SENIOR CITIZENS

Stress is defined as the physiological or psychological tension that threatens homeostasis or a person's psychological equilibrium.

The elderly face stress from various situations, which are different from those that are faced by adults. They are at a stage in life where they may face extended and critical health problems. They may

lose a spouse and feel lonely and alone. They may have retired and therefore be forced to make a change in their living conditions and financial management. Stress is augmented further by the fact that the ability of the elderly people to face stressful situations weakens over time. In spite of all the challenges that they may have faced during old age some of their systems that react and help in stress management are no longer as efficient as they were. The process of aging wears of the brain in some way and the response to stressful situations is far from adequate at times. **Woolston.C.,[2008]**

Sources of stress (Common sources of stress for elderly)



Mary Ann Boyd[2008]

Common signs and symptoms of stress

A. Physiological

- insomnia, nightmare
- loss of appetite, palpitation
- frequent urination
- muscle pain and tiredness

B. Emotional and psychological

- anxiety, fear, frustration, depression
- restlessness, poor concentration, forgetfulness

Vishal.L., [2008]

STAGES OF STRESS

Dr. Hans Selye, the highly acclaimed Endocrinologist and the father of modern studies on Stress, while presenting the General Adaptation Syndrome, revealed that as the stress starts taking its toll there are three very evident stages through which the person goes through. These phases are: The Alarm, the Resistance, and the Exhaustion phase, and also burn out.

The Alarm Phase

The Alarm phase is characterized by the triggering on the Stress Alert System (the fight or flight response). There is thus an over activity of the sympathetic nervous system, and the simultaneous inhibition of the parasympathetic nervous system. Alarm is generated in the body and the whole body starts preparing for a fight or takes a flight. There is a flush of energy, and all activities are speeded up. The pressure is evident and could be seen in his excitement or fear.

The Resistance Phase

In the Resistance phase because of the continuity of the stressful conditions there is depletion of energy, the person feels run down. As the pressure mounts he struggles to meet the various demands expected of him. He starts getting bouts of irritation, there is over-reaction to minor issues, sleep pattern starts getting altered and he starts getting weaker both mentally & physically. Very clear physical, psychological and behavioral changes are observed by others.

The Exhaustion Phase

When the stressful condition prolongs, and even after observing distinct symptoms of resistance phase, appropriate measures are not resorted to, then the Exhaustion phase takes over. As the very name

suggests the person feels fully exhausted & tired. This may go even to the extent of absence of all enthusiasm to work or even to live. Psychosomatic diseases take roots. There is emotional breakdown, insomnia, heart & BP complications, and host of other very painful symptoms associated with burnout. The burnout has started.

Burnout

Burnout is the most dangerous stage which the stressed people come to. Any sign of burnout shows the urgency of the situation and has to be handled at the earliest with highest priority.

Kaplan and Sadock (2000)

STRESS MANAGEMENT FOR THE ELDERLY

- The elderly can share their difficulties and feelings in facing stress, and their way of coping, with those they can confide (e.g. relatives and friends). This helps to ventilate emotions and facilitate the learning of different strategies of coping with stress.
- An active social life, healthy lifestyle and relaxation exercises are all useful ways to handle stress.
- Engaging in volunteer work is a means to help those who are less fortunate. It also helps to boost self-confidence and broaden one's outlook in life.

- Positive thinking, such as appreciating one's achievements and strengths, can help to enhance self-confidence and to cope with stress.
- The elderly can seek help from professionals in case of need. Smoking, drinking and substance abuse are harmful and should never be used as ways to cope with stress.
- Trying yoga, meditation, breathing exercises when feeling stressed out and need to relax.

Vishal.L.,[2008]

PART-B

Selected relaxation techniques

Pranayama therapy

Pranayama is generally defined as breath control. Although this interpretation may seem correct in view of the practices involved, it does not convey the full meaning of the term, the word pranayama is comprised of two roots, "Parana" plus "ayama". Parana means "Vital force" or "Life force" and ayama is defined as extension (or) expansion. Thus the word pranaya means "extension or expansion of the dimensions of prana. The techniques of pranayama provide the method where by flow of prana in the nadis is regulated, activated and purified, thus inducing physical and mental stability.

EFFECTS OF PRANAYAMA THERAPY

Biological Effects.

- ❖ Relaxation of the mind and body. Slow, deep, rhythmic breathing causes a reflex stimulation of the parasympathetic nervous system, which results in a reduction in the heart rate and relaxation of the muscles. These two factors cause a reflex relaxation of the mind, since the mind and body are very interdependent. In addition, oxygenation of the brain tends to normalize brain function, reducing excessive anxiety levels.
- ❖ Rejuvenation of the glands, especially the pituitary and pineal glands.
- ❖ The relaxation response brings your system back into balance, deepening your breathing, reducing stress hormones, slowing down heart rate and blood pressure, and relaxing your muscles.

Psychological Effects.

Prana is the vital force (or) power. Our state of mind is closely linked to the quality of prana within. Quality of our breath influences our state of mind and vice versa. When the in-flowing breath is neutralized or joined with the out-flowing breath, then perfect relaxation and balance of body activities are realized.

AEROBIC EXERCISES

Definition

The American College of Sports Medicine (ACSM) defines aerobic exercise as "any activity that uses large muscle groups, can be maintained continuously, and is rhythmic in nature." It is a type of exercise that overloads the heart and lungs and causes them to work harder than at rest.

TYPES OF AEROBIC EXERCISE

- Aerobic Dance
- Bicycling
- Cross Country Skiing
- In-line Skating
- Fitness Walking
- Jumping Rope
- Running
- Stair Climbing
- Swimming

Effect Of Aerobic Exercise In Reducing Stress

Hormonal Changes (glandular secretions). The endocrine system (Composed of our Glandular Systems) is the chemical regulator of the body. The glands react to aerobic stimulation by secreting specific

hormones that have specific effects on specific parts of our bodies. One lowers cholesterol, one elevates mood another suppresses appetite, etc. There are literally hundreds of these chemical regulators present in our body at all times. Exercise affects the level of certain specific hormones and, thus, cause specific internal chemical changes in the body. Some of these changes are short-term and some becomes more permanent with a regular aerobic program.

- ❖ Improves the quality of sleep that freshen you early next morning.
- ❖ Helps to avoid chronic diseases like heart disease and hypertension.
- ❖ Aerobics increases the resistance fatigue and gives you more energy.
- ❖ Improves your mood and reduces depression, stress and anxiety.
- ❖ A regular and routine practice of the aerobics exercises will help you even when you grow old. The benefits of Aerobics also include the growth and confirmation of mental peace, stamina and free logical thinking. The exhaustion caused by the practice of aerobics exercise gives you a mental satisfaction offering you the sensation of a unique relief.

American College of Sports Medicine (ACSM)[2009]

PART - C

Studies related to stress among senior citizens :-

Cheng ST, Fung HH, and Chan AC.(2008), conducted a study on Living status and psychological well-being: social comparison as a moderator in later life at Hong Kong, China. Findings suggest that, although living alone is a risk factor for depression in old age, its negative effect can be reduced or even eliminated when downward social comparison is practiced. These findings highlight the importance and effectiveness of psychological adaptation in the face of relatively more objective challenges in old age.

Cairney J, Krause N.(2008), conducted a study on, Negative life events and age-related decline in mastery: are older adults more vulnerable to the control-eroding effect of stress? at Toronto, Canada. The findings from this study suggest that exposure to life events is an important, yet overlooked, determinant of age-related decline in control. Loss of personal and social resources may be the reason older adults appear more vulnerable to the negative effects of stress.

Chokkanathan.S.,(2008), conducted the study on, Resources, stressors and psychological distress among older adults in Chennai, India. Psychological distress was measured using the Center for Epidemiological Studies Depression scale and Geriatric Depression

Scale. Interviews were conducted among 400 adults aged 65 years and above, randomly selected from the electoral list of urban Chennai, India. The results supported the stress-suppressor model. Resources had an indirect, negative relationship with psychological distress, and stressors had a direct, positive effect on distress. As such there is a need to identify and strengthen the resources available to older adults in India.

Bharathi Bhosale and Rohini Devi,(2008), conducted study on health status of institutionalized elderly at Akhij district, Solapur. In that study they examined about various health problems such as anorexia, stomach pain, constipation, indigestion, loss of memory, insomnia, head ache, etc. They revealed that 46.4% had complained loss of memory, 42.6% had complained insomnia, 39.4% had complained head ache that shows the poor quality of life among institutionalized elderly.

Lin P.C., et.al (2008), conducted a study with a aim to identify and describe predictors of QOL of elders who live alone in Taiwan. The findings revealed that elders who live alone in rural areas and suffer from depression are at high risk for a low quality of life. However, elders living alone reported a better QOL than their institutionalized counterparts. Interventional research and policy decisions focused on treatment for depression and providing social support networks, as these elders age, will be particularly important.

August KJ, Rook K.S and Newsom J.T.,(2007),conducted a study on, The joint effects of life stress and negative social exchanges on emotional distress at California. They concluded that negative social exchanges and stressful life experiences jointly affect emotional distress, but the particular nature of the joint effects varies by type and level of stressor.

Saroj.,et.al.,(2007), conducted a study regarding Psycho-social status of senior citizens and related factors at Haryana, India. Ten old age homes from Haryana were selected randomly. 120 respondents were taken as sample size. The independent variable included age, gender, and occupation, place of residence, marital status, family type and family size. The dependent variables taken were the attitude, depression, social status, economic status, health status, leisure time activities and overall Psychosocial-economic status. The results suggested regarding overall Psychosocial-economic status were, 33.33% had low, 43.33% had moderate, and 23.33% had high. Major reasons for joining the institution were, 83.33% to meet the basic needs, 66.67% because of negligence or rejection by family members. The depression was positively significantly correlated with age and residing period in the institution ($r = 0.29, p < 0.05$). it shows that as the age and period of residing increases, the level of depression also increases.

Paulo.S.,(2006) conducted a study on Insomnia, depressive signs and symptoms and quality of life in institutionalized elderly subjects, at Campo Grande, MS Brazil. They revealed concerning insomnia in institutionalized senior citizens, 77.78% reported initial insomnia, 55.55% had intermittent insomnia and 22.2% had final insomnia, where as regarding the quality of life, the subjective perception of institutionalized senior citizens was that most of them felt neither satisfied nor dissatisfied as to social relationship (72.2%), psychological (91.6%) and physical (50%) domain of WHOQOL, 72.2% referred neither satisfaction nor dissatisfaction with their global and subjective QL evaluation, 88.9% referred dissatisfaction about environmental domain.

Philip.G (2004), conducted a study to assess the level of stress between the residents of old age homes and elderly persons living with their families in the selected areas, Madurai, revealed that, none of them were free from stress in old age homes, they experienced different level of stress such as mild stress (18%), moderate stress (44%) and severe stress (38%).

Papathi.K (2003) in their study had stated the older people are often victims of mental disorders or account of their fear about death and feelings of dependency anxiety, boredom, loneliness and

hopelessness. The disintegration of joint family system, socio economic conditions had made old people suffer from mental illness.

Gill R. and Saini. S (2002) investigated the emotional maturity among institutionalized and non institutionalized aged in Punjab. There were 140 subjects in this study. The results revealed that institutionalized males & females were found to be extremely unstable as compared to the non-institutionalized.

Singh.C.P,(2002) has reported in his study that old age is characterized by deterioration in physical capacities. Deterioration brings changes in the person's active participation in different areas of life. Role playing, role dependence, industrialization, modernization and urbanization had changed the values on role and status of old age people economic problems, health problem, family responsibilities neglected by the family and disturbed relations leads to stress in the elderly.

Elena.,et.al (2002), conducted a study on The self concept in institutionalized and non- institutionalized elderly people at Italy. Sixty institutionalized and non- institutionalized elderly men and women participated in an investigation which assessed their spontaneous self – concepts by means of the Twenty statement Test and their level of self – esteem by means of the Rosenberg scale. The results indicate that the

institutionalized elderly have a more negative self – concept, lower levels of self- esteem, and a more restricted inter – personal self.

Richard de. Minzi. Y. (2000) had conducted a study about the sources of stress and coming styles varying with age. Elderly adults were perceived as potentially menacing. The physical, psychosocial and material resources were taken on daily demands and the coping strategies were used to diminish the menace perceived.

Grace.D.,(2000) conducted a descriptive study about the stress perceived and coping strategies used by residents of old age homes in Vellore. 47 samples were selected and interviewed with self structured questionnaire. Findings showed that most of them had low coping strategies by seeking complete isolation and keeping feelings to themselves and felt better by smoking.

Selvi.K.,(1999) conducted a study at Chennai to assess the level of well being among institutionalized elderly. Sample size 40. The finding of this study is 45% of older people reported lower quality of well being, 32.5% of older people reported moderate quality of well being and 32.5% of older people reported high quality of well being.

Studies related to causes of stress among senior citizens residing in old age home

Pinto A.S. Jai. Prakash (2000), investigated the life quality of the aged at home and institutions. The objective of the study was to

understand the reasons for the institutionalizing the elderly and compare the quality of the life of the institutionalized with that of the home bound using a semi structured interview schedule. 25 aged people living at home and 25 inmates from old age home were interviewed results revealed that lack of family support, lack of spouse, absence of children were the reason for being institutionalized. Home bound elderly were more active; more satisfied and had more social contacts than the elderly in old age homes.

Woo (2000) conducted a prospective study in Hong Kong, 21032, subjects of aged 70 years were taken for study. Stratified random sampling, was used by covering 90% of elderly population. A questionnaire was administered on social, functional physical and mental health status. The results showed institutionalization rate per year is estimated to be 0.7%. Aged being women, being Single physical dependency and presence of depressive symptoms were factors predisposing to institutionalization. The study suggested good social support, engagement in social activities and good informal care may reduce demand for institutional care.

Choi NG, Ransom S, Wyllie RJ.(2008), conducted study on Depression in older nursing home residents: the influence of nursing home environmental stressors at Austin,USA. Concluded that, the major themes related to the causes of their depression were loss of

independence, freedom and continuity with their past life; feelings of social isolation and loneliness; lack of privacy and frustration at the inconvenience of having a roommate and sharing a bathroom; loss of autonomy due to the institutional regimen and regulations; ambivalence toward cognitively impaired residents; ever-present death and grief; staff turnover and shortage; and stale programming and lack of meaningful in-house activities. Self-reported coping mechanisms included religion and stoicism, a sense of reality, positive attitude and family support.

Beard.J.R., (2008) conducted study on Neighborhood Characteristics and Change in Depressive Symptoms Among Older Residents of New York City, revealed that an older adult's neighborhood of residence is an important determinant of his or her mental health. Those making efforts to improve mental health among the elderly need to consider the role of residential context in improving or impairing mental health.

Thygesen.E.,et.al(2009), conducted study on “Psychological distress and its correlates in older care dependent persons living at home”at Norway, concluded that the general level of psychological distress was low. Low psychological distress was related to an inner strength conceptualized as sense of coherence. Commonly reported risk

factors such as sex, house hold composition and perceived social support.

Studies Related To Specific Relaxation Techniques.

❖ Studies related to effect of pranayama therapy on stress

Jennifer A. et.al, (2006) conducted a study on the relaxation response: Reducing stress and improving cognition in healthy aging adults, concluded that Aging adults are vulnerable to the effects of a negative emotional state. The relaxation response (RR) is a mind-body intervention that counteracts the harmful effects of stress. Fifteen adults participated and were randomly assigned to a RR training or control groups. Mean age was 71.3 years and mean education level was 17.9 years. Reaction time on a simple attention/psychomotor task was significantly improved ($p < 0.0025$) with RR training, Self-reported state anxiety levels showed a marginally significant reduction ($p < 0.066$).

Arpana.G.,(2006) conducted study to assess the effectiveness of yoga therapy in reducing psychological stress among the residents of selected old age home, Madurai. She stated that, residents of old age home had 13.3% of mild stress, 40% of moderate stress and 46.7% severe stress as a score of pretest . In relation to physical factor 28 (46.7%) of the elderly had severe stress in the pretest and it has reduced to 15 (25%) in the post test, regarding the psychological factor 39 (65%)

of the elderly had severe stress in the pre test and it has reduced to 21 (35%) in the post test, regarding socio-economic factor 18 (30%) of the elderly had severe stress in the pre test and it has reduced to 11 (18.33%) in the post test.

Wang.D,(2009) conducted study on, the use of yoga for physical and mental health among older adults in Newyork, concluded that the older adult population may greatly benefit from the practice of yoga. This article reviews the scientific evidence supporting the use of yoga with the older adults. Nine studies were identified and examined either physical or mental health outcomes in older adults following a yoga intervention. There is a growing evidence that yoga can improve physical wellbeing, however there is preliminary evidence that yoga can improve sleep quality and depression among older adults.

Bonura,K.B.,(2009) conducted a study on Effects of yoga versus Exercise on stress, anxiety, and depression in older adults and ANCOVAs revealed significant time by group interaction for stress frequency; the yoga group showed stress reduction over the time.

Richard.M.,(2002) Said that Yogic techniques of breathing, pranayama, relieve stress, enable people to connect better and be healthier. Said that these techniques of rapid breathing activate a nerve, gagus that connects with the diaphragm and some of the organs including the heart and brain. As a result of this stimulation, messages

are sent along three different pathway to tell the body to shut off areas of worry, in the frontal context and in the brain stress and then to the limbic system, which controls pastime entrains awakening it.

Battacharya.A., (2002) described modern life style which is known to produce various physical and psychological stresses and subject the indirect to produce oxidatma stresses aswell. The aim of the study has been to assess the effect of yogic breathing exercises (paranayama) on the oxidative stress. Yogic breathing exercises not only help is relaxing the stress of life but also improve the antioxidant status of the individual. An improvement in the antioxidant status in helpful in preventing many pathological process that are known with impaired entroxident system of body.

Prisi.A., (2001) investigated that pranayama therapy reduce stress indicated high blood pressure. Ojaiji pranayama the psychic breath, calming the the mind, reducing BP, relaxing stress. This simple breathing technique can be used any time, no matter what you are doing. Do when resting, working, playing meditating.

❖ **Studies related to effect of aerobic exercises**

Rebello.M., (2004) had stated that exercise can relieve anxiety effectively than other therapies. Exercise is also excellent for reducing stress in the short term. Physical exercise helps the individual to use the stress terrors to cope with stress. Researches also show that physically

active people are mentally healthier, Exercise measures alertness mental ability, cognitive skills and self esteem.

Gatathri Ram B.P. (2003) had stated that physical exercise focus on leisure actively for older adults; its benefits are linked to health self esteem and self life. Exercise leads to improvement in central nervous system function, improvement of viscerospatial cognitive abilities that decline according to old age, improves glucose metabolism and neurotransmitter in the brain.

Guszkowska M.(2004),conducted study on, Effects of exercise on anxiety, depression and mood,This article reviews the studies on the effects of physical activity on the emotional states--anxiety, depression and mood. The meta-analyses of correlational and experimental studies reveal positive effects of exercise, in healthy people and in clinical populations (also in patients with emotional disorders) regardless of gender and age. The benefits are significant especially in subjects with an elevated level of anxiety and depression because of more room for possible change. The most improvements are caused by rhythmic, aerobic exercises, using of large muscle groups (jogging, swimming, cycling, walking), of moderate and low intensity. They should be conducted for 15 to 30 minutes and performed a minimum of three times a week in programs of 10-weeks or longer. The results confirm the acute effect of exercise i.e. the reductions in anxiety and depression after

single sessions of exercise. The changes in anxiety, depression and mood states after exercise are explained most frequently by the endorphin and monoamine hypotheses. Exercise may also increase body temperature, blood circulation in the brain and impact on hypothalamic-pituitary-adrenal axis and physiological reactivity to stress. The possible psychological mechanisms include improvement of self-efficacy, distraction and cognitive dissonance.

Bonura.K.B.,et.al.(2009), conducted study on the effects of yoga versus exercise on stress, anxiety and depression in older adults and concluded that the yoga group showed the most stress reduction over time. Time by group interactions for the other variables (stress severity, depression, and anxiety) were non significant, although Yoga participants experienced the most benefits over the course of the intervention. Replication with a larger sample size is warranted in order to better understand the impact of Yoga on psychological health in older adults.

CHAPTER – III

METHODOLOGY

This chapter deals with the methodology used to assess the effectiveness of selected relaxation techniques in reducing the level of stress among senior citizens residing in selected old age home.

It includes the research design, setting of the study, population, sampling technique, and sample size, criteria for selection of samples, development and description of the tool, content validity, pilot study, data collection procedure and plan for data analysis.

RESEARCH APPROACH

The evaluative approach was used for this study.

RESEARCH DESIGN

The research design selected for this study was **Pre experimental design** with one group pre test post test design.

Pre test	Intervention	Post test
O ₁	X	O ₂

The symbols used:

O₁: Collection of demographic data. Pretest to assess the level of stress among senior citizens.

X: Intervention –selected relaxation techniques includes Pranayama therapy and Aerobic Exercise

O₂: Post test to assess the level of stress among senior citizens.

RESEARCH SETTING

The study was conducted in selected old age home in Coimbatore namely 'St. Joseph's old age home', the setting is having the population of approximately about 128 members. There is a separate wing for male and female, which also includes separate wing for chronically ill senior citizens.

POPULATION

The population of the study was the senior citizens who are residing in old-age home.

SAMPLE

Sample constitute of senior citizens residing in selected old age home at Coimbatore.

CRITERIA FOR SAMPLE SELECTION

❖ Inclusion Criteria

The senior citizens who are

- Above 55 years of age in both sexes.
- Willing to participate.
- Available during data collection period.

❖ Exclusion Criteria

The senior citizens who are

- Having disturbances in memory.

- Chronically ill.
- Having disease condition which restricts the activity (e-g) high blood pressure, heart disease.
- Having hearing loss, blindness, and not having hearing aids.

SAMPLE SIZE

Sample size constitute of 60 senior citizens.

SAMPLING TECHNIQUE

Purposive sampling technique was used.

TOOL AND SCORING PROCEDURE

Structured interview schedule was used to assess the level of stress among senior citizens.

(i)Description of the Tool

Part I

It consists of demographic variables such as age, sex, education, religion, duration of residing in old age home, and number of children, reason for residing in old age home, Supportive system, Spirituality.

Part II

Modified stress Assessment Rating Scale to assess the level of stress. It consists of 50 items with 4 responses such as never, sometimes, very often and always.

(ii) Scoring Procedures and Interpretation

Structured Interview Schedule

Four point rating scale was used to assess the level of stress among the senior citizens. It consists of 50 questions. Total score was 150.

0- Never

1- Some times

2- Very often

3- Always

LEVEL OF THE STRESS	SCORES	PERCENTAGE
Low Level Of Stress	Below 50	0 -33
Moderate level of stress	51 - 100	34 -67
High level of stress	101 - 150	68 -100

VALIDITY AND RELIABILITY

Validity

The validity of tool was established in consultation with a Psychologist and 4 Psychiatric Nursing Experts. The tool was modified according to the suggestion and recommendations given by experts.

Reliability

The reliability of the tool was established by testing stability and internal consistency. The stability was assessed by test-retest method where the Karl Pearson's formula was used and found to be reliable

($r = 0.9$). Internal consistency was assessed by using split half method where the Karl Pearson's formula was used and found to be reliable ($r = 0.89$).

PILOT STUDY

The pilot study was conducted in "Jakob care center" in Coimbatore, for a period of 15 days. Formal permission was obtained from the In-charge of old age home. The samples were selected by purposive sampling technique who met the inclusion criteria, and the sample size constitute of 6. The self introduction about the investigator and information regarding nature of the study was explained. Samples were gathered in one place and pretest questionnaire was administered which also includes demographic details on the first day. After the pretest senior citizens were imparted the teaching on selected relaxation techniques for 45 minutes by the investigator using compact disc and laptop. After teaching, senior citizens were instructed to repeat the relaxation techniques and corrections were made in the practice.

On the day 1st to 15th the practice of selected relaxation techniques of senior citizens were supervised and guided by the investigator. Pranayama therapy was demonstrated daily for 30 minutes, and aerobic exercise was demonstrated for 3 days per week for the period of 20 minutes. The post test was conducted for senior citizens on the day 15th. The mean pretest stress score was 91.2 and the mean posttest stress

score was 49.8. So the mean posttest stress score was lower than the mean pretest stress score. This shows the study is feasible and practicable to proceed with the main study.

DATA COLLECTION PROCEDURE

The data was collected in the month of August 2009 in 'St. Joseph's old age home'. The researcher obtained verbal consent from the participant and written consent from the in charge of the old age home.

Day 1st, 2nd, 3rd, 4th was utilized for the pretest. Each day 15 samples were interviewed and data was collected that includes the demographic variables and stress assessment rating scale. For each sample 20minute was allotted. From 10AM to 12 Noon and from 12.30PM to 5PM the data were collected for the first 4 days. After that samples were gathered in one place from 5PM to 6PM, where the selected relaxation techniques explained through the prepared CD and laptop by the investigator and the senior citizens were instructed to repeat the procedure and corrections were made in practice.

From the day 5th to day 20th the intervention was given to the participants. The group was divided in to 2 sub groups. In the morning 30 members and in the evening 30 members were given intervention. Morning between 10 a.m to 10.20 a.m and in the evening 4 p.m to

4.20 p.m was utilized, and the respondents were encouraged to practice in the early morning also.

Pranayama therapy was demonstrated daily for 20 minutes, aerobic exercise was demonstrated for 3 days per week for the period of 20 minutes. Day 21st, 22nd, 23rd, 24th was utilized for post test. Finally the data were analyzed using descriptive and inferential statistics.

PROTECTION OF HUMAN SUBJECTS

The research proposal was approved by the dissertation committee of the collage prior to the study. Written permission from the in charge of the old age home was obtained and verbal consent from the participants. The researcher maintained confidentiality throughout the study. The researcher was conscious about the ethical issues and full-disclosure was maintained by the researcher.

PLAN FOR DATA ANALYSIS:-

The collected data were tabulated and analyzed using descriptive and inferential statistical method.

S. No	Date analysis	Methods	Remarks
1.	Descriptive statistics	Frequency percentage, Mean, standard deviation	To describe the demographic variables of senior citizens, and to assess the level of stress.
2.	Inferential statistics.	Paired "t" test	Assess the effectiveness of selected relaxation techniques among the senior citizens.
		Chi- square test	Find the association between the post test stress scores of senior citizens with their selected demographic variables.

CHAPTER- IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of the data collected to assess the effectiveness of selected relaxation technique is reducing the level of stress among senior citizens residing in selected old age home.

The purpose of analysis is to reduce data to intelligible and interpretable, so that relation of research problems can be studied and tested. The analysis of data collected for the present study has been organized in relation to the objectives and hypothesis formulated for the study.

Data were collected from 60 senior citizens in old age home situated at Coimbatore using stress assessment rating scale. The data obtained were analyzed and presented under the following headings.

The data had been tabulated and organized as follows.

- Section A: -** Distribution of demographic variables of senior citizens.
- Section B: -** Comparison between pre and post test level of stress score among senior citizens
- Section C: -** Association between post test level of stress score with their demographic variables among senior citizens

SECTION - A

Table: 1 Distribution of demographic variables.

n = 60

S.NO	Demographic variables	Frequency	%
1.	Age(in years)		
1.1.	55 – 60	2	3
1.2.	60 – 65	1	2
1.3.	65 – 70	21	35
1.4.	70 – 75	36	60
2.	Sex		
2.1.	Male	31	52
2.2.	Female	29	48
3.	Education		
3.1.	No formal education	39	65
3.2.	Primary education	16	27
3.3.	Secondary education	4	6
3.4.	Higher secondary education	1	2
3.5.	Graduate	-	-
4.	Duration of residing is Old Age Home		
4.1.	≤ 5 years	46	77
4.2.	5 – 10 years	8	13
4.3.	≥ 10 years	6	10
5.	Number of children		
5.1.	No children	15	25
5.2.	1	20	33
5.3.	>1	25	42

6.	Reason for residing in Old Age Home		
6.1.	No children	14	23
6.2.	Abuse and neglect by the children	30	50
6.3.	Other problem	16	27
7.	Support system.		
7.1	Family members	22	37
7.2.	Neighbour	6	10
7.3.	Friends	14	23
7.4.	No one	18	30
8.	Spirituality		
8.1.	Yes	59	98
8.2.	No	1	2

Highest percentages (60%) of the senior citizens were in the age group of 70 -75 years. However, least percentage of senior citizens was in the age group of 55- 60 years (3%) and 60 - 65 years (2% respectively. The majority of the senior citizens were in the age group of 70 – 75 years, it may be due to rapid shift in modernization and increased urbanization and also the “longevity” of the aging population is increased (Figure 2).

Percentage distribution of senior citizens according to their sex shows that 52% of the senior citizens were male and 48% of the senior citizens were female(Figure 3).

Highest percentage (65%) of the senior citizens had no formal education, where as around one fourth (27%) of the senior citizens had primary education, however 7% of senior citizens had secondary education and least percentage (2%) senior citizens had higher secondary education. Where as no one is graduate (Figure 4).

Percentage distribution of senior citizens by duration of residing in old age home, depicts that $\frac{3}{4}$ th of (77%) of senior citizens were residing ≤ 5 yrs, 13% of senior citizens were residing 5 – 10 yrs and 10% of senior citizens were residing more than 10 yrs. Majority of the senior citizens were residing in old age home with in 5 yrs of duration (Fig 5).

Percentage distribution of senior citizens according to number of children depicts that majority 42% of senior citizens were having more than one children, however 33% of senior citizens were having one children and 25% of senior citizens were not having children (Figure 6).

Percentage distribution of senior citizens according to reason for residing in old age home depicts that half of (50%) senior citizens were abused and neglected by the children and 27% of them having other problem mainly quarreling with daughter – in – law and disability induced by chronic disease condition, however 23% of senior citizens were not having children. There data implies that abuse and neglect by the children is the major reason for admitting the senior citizens in old age home (Figure 7).

Highest percentage of (37%) senior citizens were having social support from family members and around one third 30% of them were not having any support system and 10% of senior citizens were having support from neighbor, however 23% of senior citizens were having support from friends. So highest percentage of senior citizens were having social support from family member (Figure 8).

The data depicts that almost all the senior citizens (98%) were following spiritual practices that increases their coping mechanism to let out the stress.

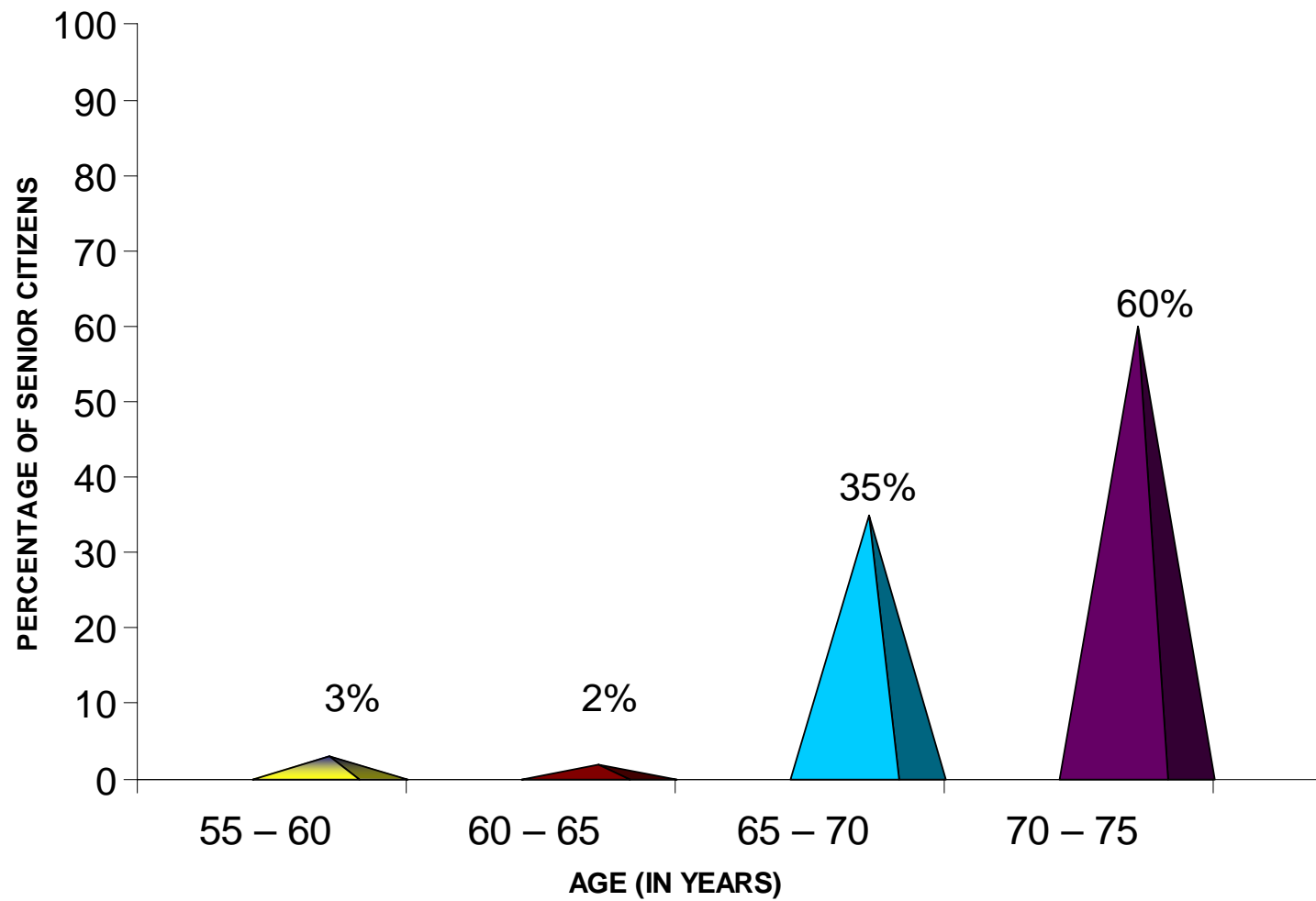


Fig 2:- Percentage distribution of senior citizens according to their age.

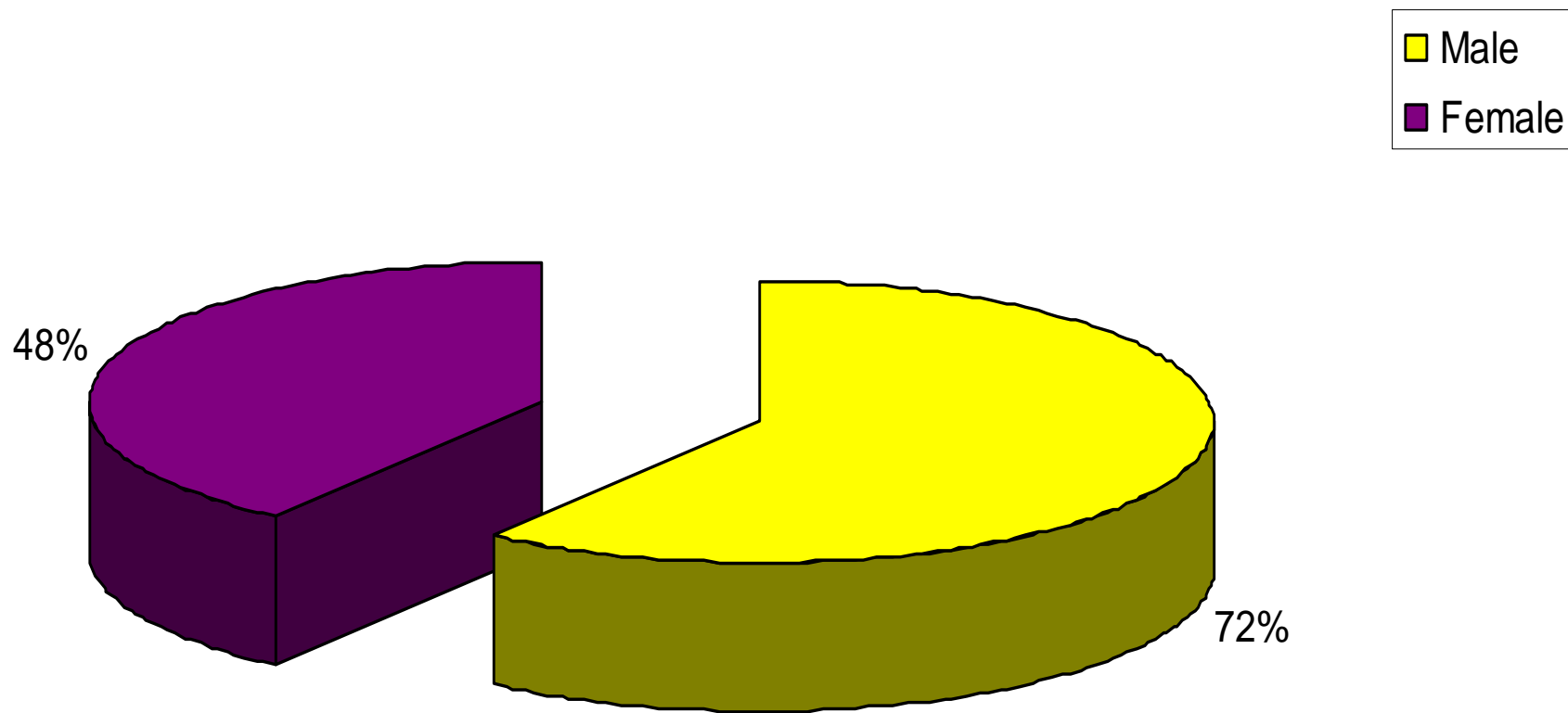


Fig3:- Percentage the distribution of senior citizens according to their sex.

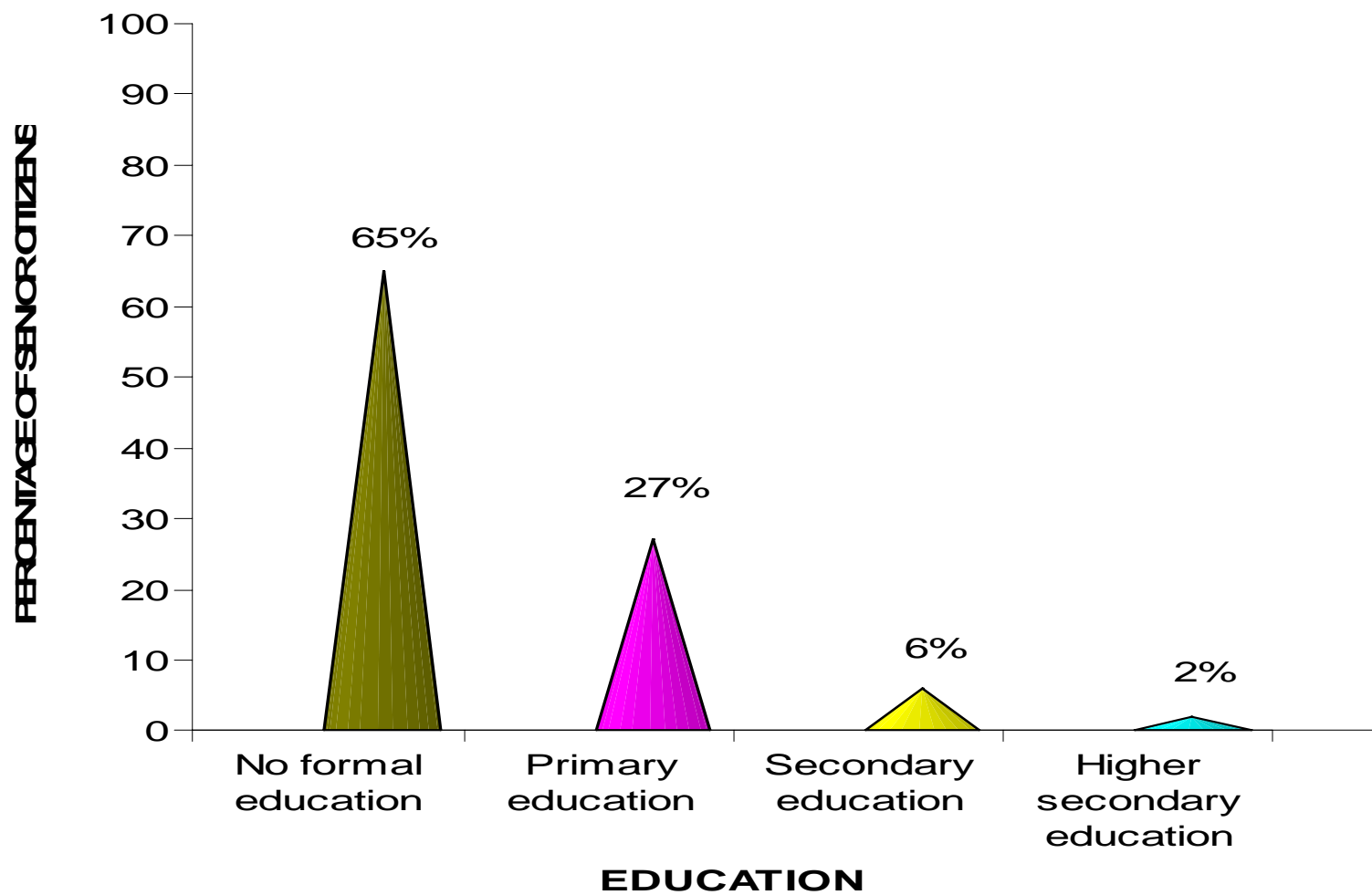


Fig 4:- Percentage distribution of senior citizens according to their educational status

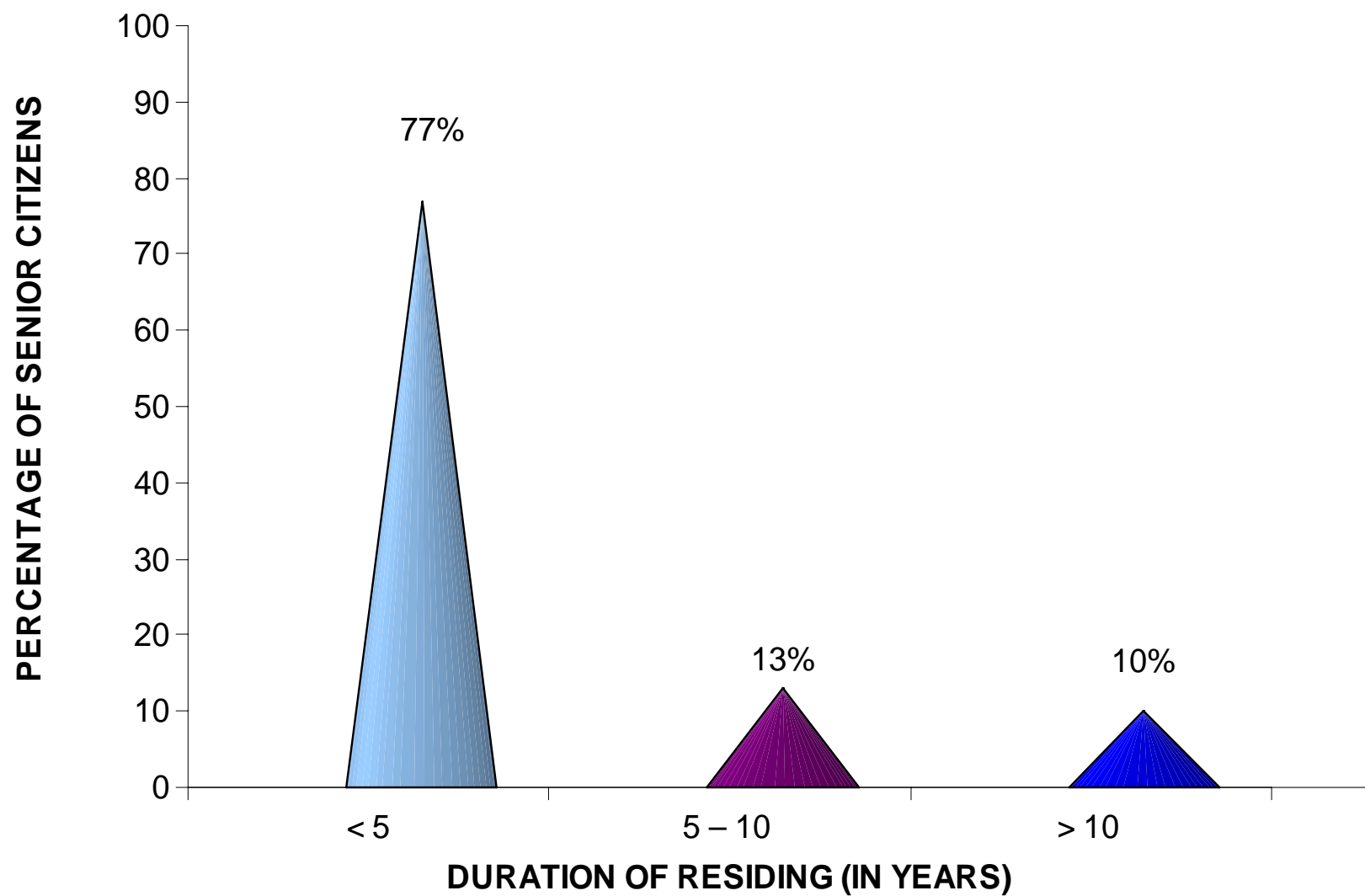


Fig 5:- Percentage distribution of senior citizens by duration of residing in old age home.

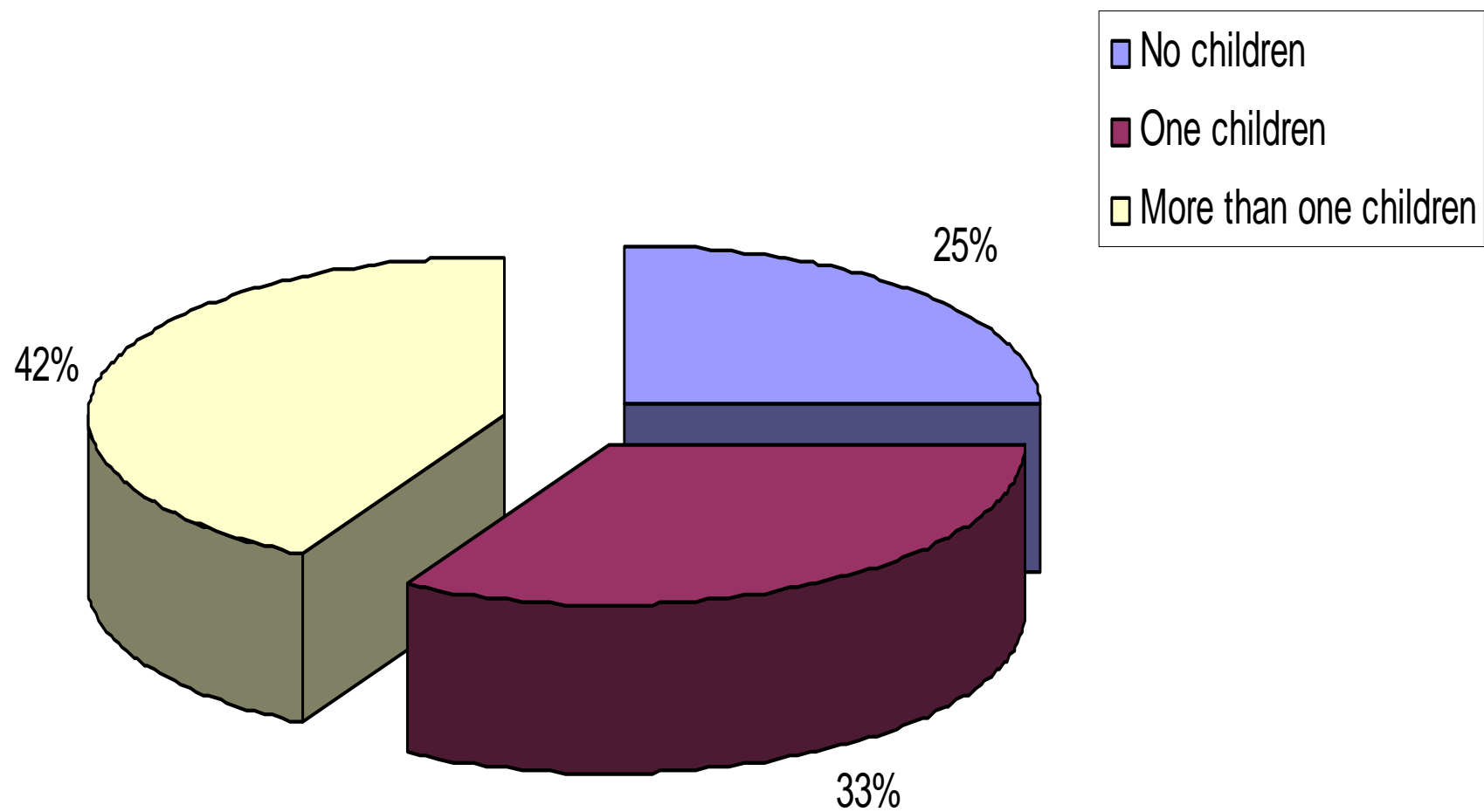


Fig 6:- Percentage distribution of senior citizens according to number of children.

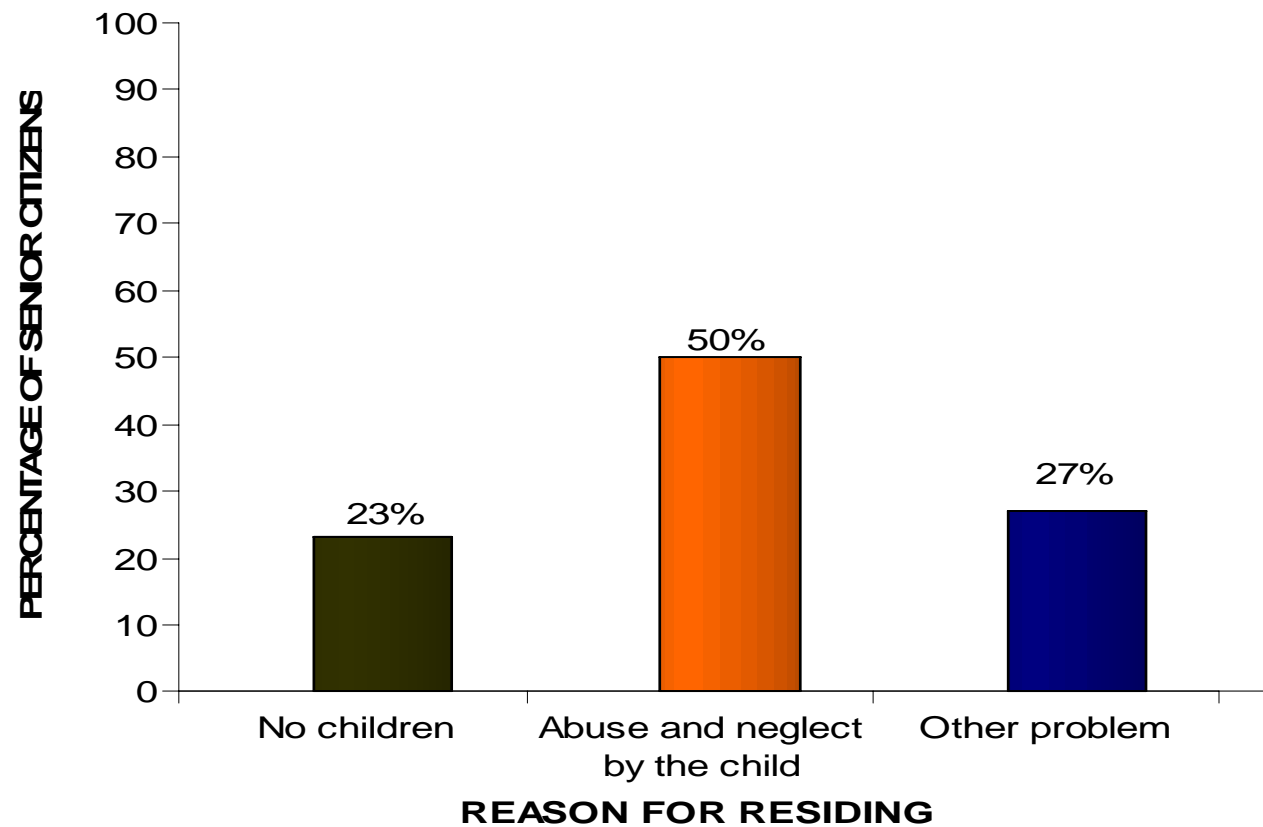


Fig 7: Percentage distribution of senior citizens according to reason for residing in old age home.

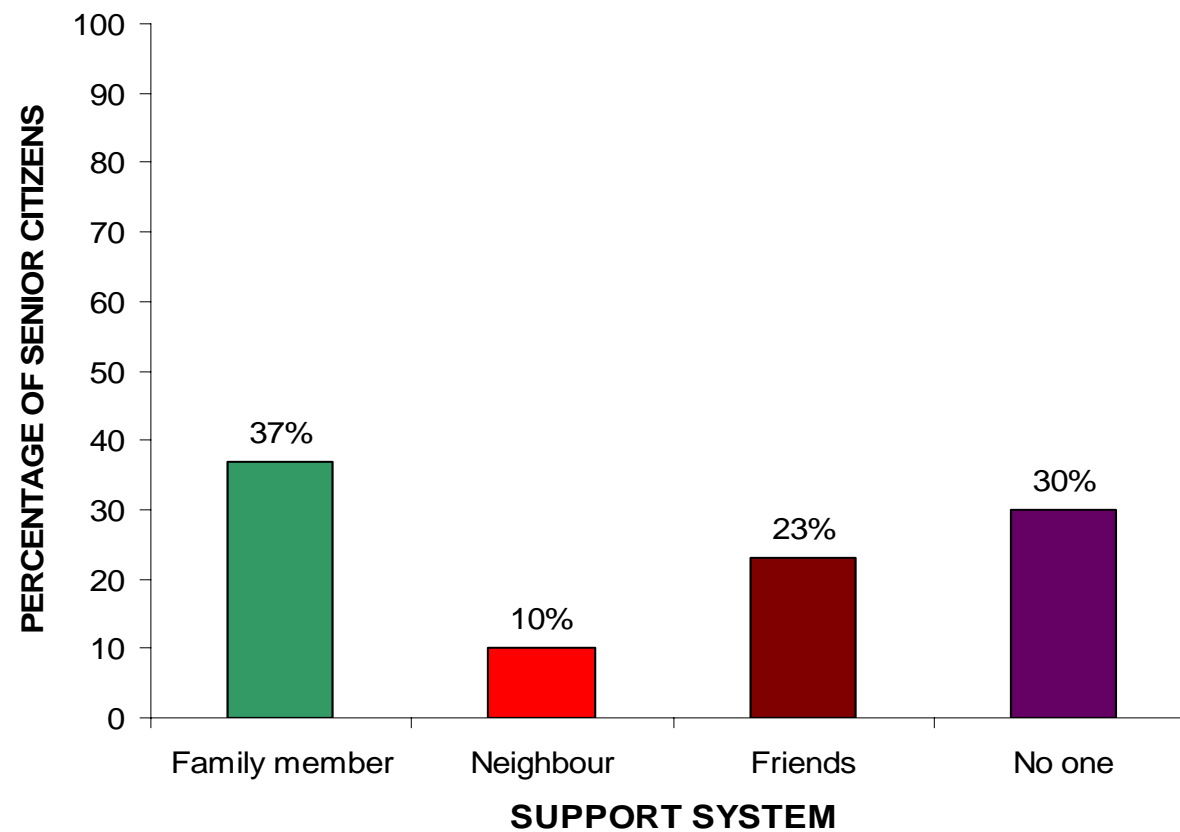


Fig8:- Percentage distribution of senior citizens according to their support system.

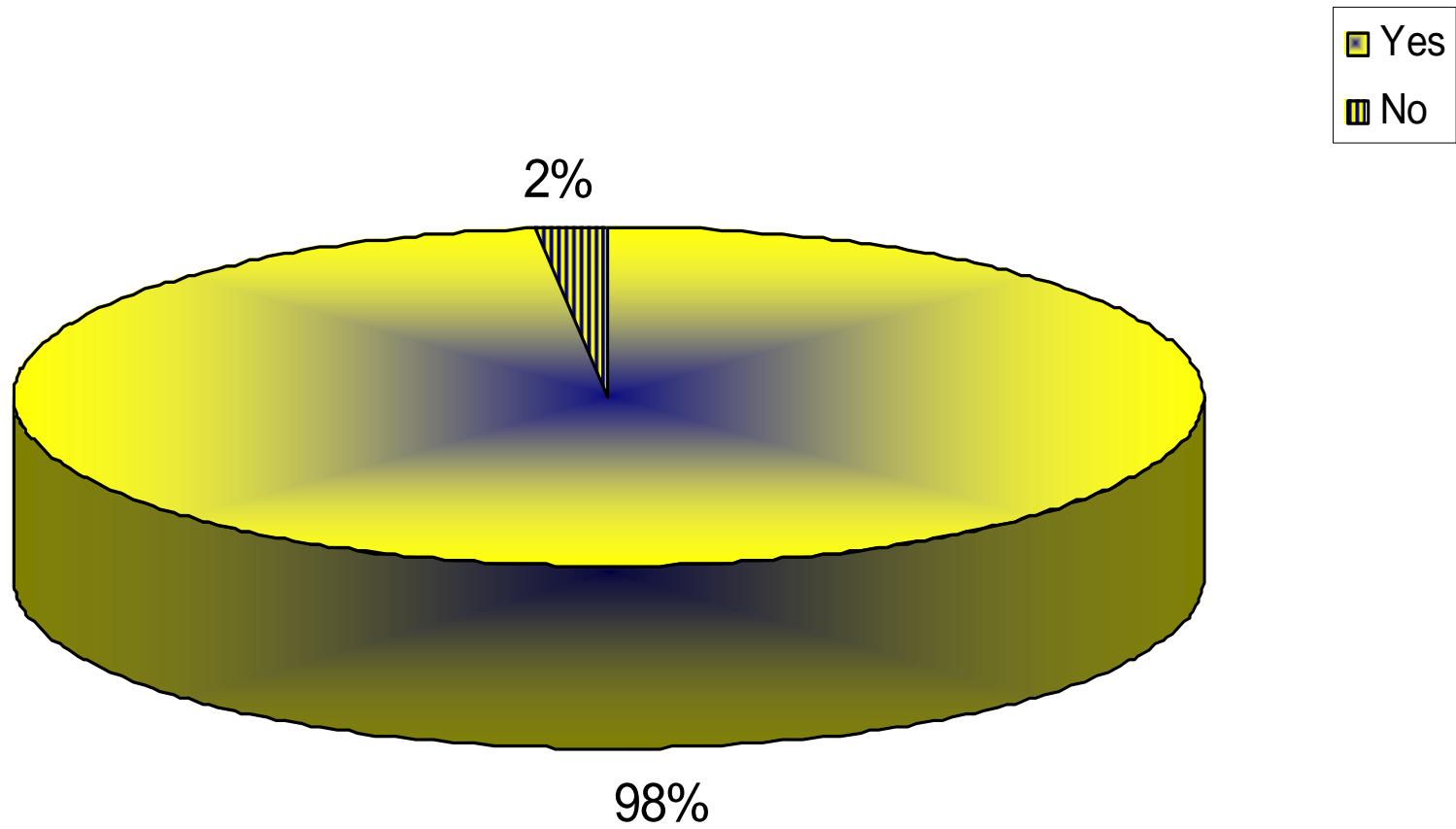


Fig8:- Percentage distribution of senior citizens according to their spirituality.

SECTION - B

Comparison between pre and post test level of stress scores among senior citizens.

Table 2:- Comparison of frequency and percentage distribution of pre test and post test level of stress scores among senior citizens.

n = 60

Level of stress	Pretest		Post test	
	F	%	F	%
High	9	15%	-	-
Moderate	47	78%	30	50%
Low	4	7%	30	50%
Total	60	100	60	100

(df - 59,

P< 0.05)

Frequency and percentage distribution of pre test and post test level of stress among senior citizens depicts that in pretest majority (78%) of senior citizens had moderate level of stress, where as 50% of senior citizens had moderate level of stress in post test, how ever 15% of senior citizens had high level of stress in pre test and none of them had high level of stress during post test, least percentage (7%) of senior citizens had low level of stress in pretest and in post test 50% of them had low level of stress. It showed that most of them had moderate level of stress in pretest and in post test it had reduced to low level of stress.

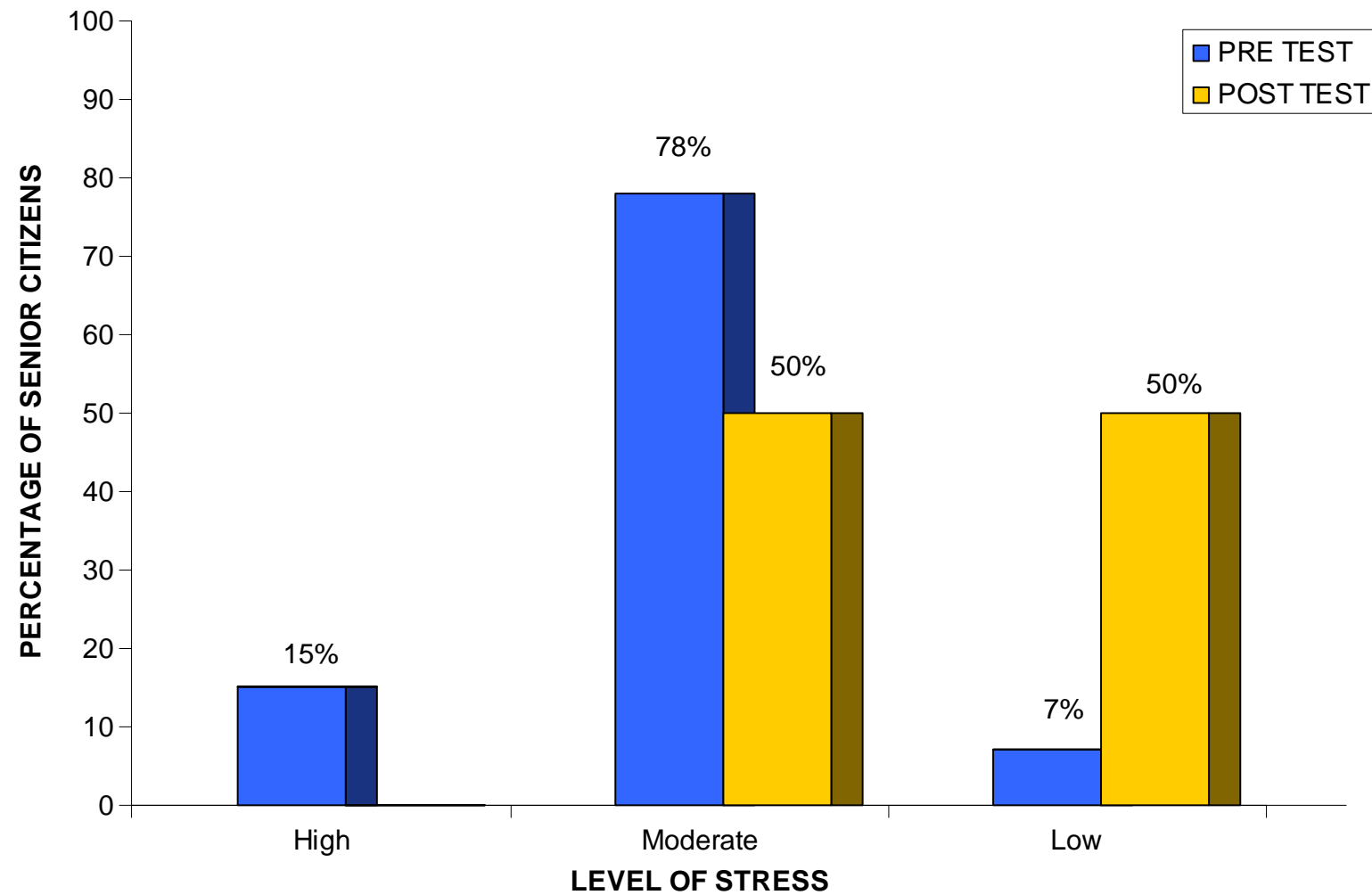


Fig 9: Comparison between pre and post test level of stress scores.

SECTION - D

Table 3: Comparison of mean, standard deviation, paired 't' values in pretest and post test level of stress among senior citizens.

n = 60

Stress scores	Mean	S.D	Paired 't' value	Table value
Pretest	83.25	11.75	23.715	1.671
Post test	49.6	10.09		

(df - 59)

(P< 0.05)

Table 5 depicts that the mean post test stress score (49.6, SD ± 10.9) is significantly lower than mean pretest stress score (83.25, SD ± 11.75). The paired 't' test shows that there is a significant difference between pre test and post test stress scores of senior citizens ($t = 23.715$) at 5% level of significance ($P > 0.05$) indicate the effectiveness of practicing selected relaxation techniques.

SECTION - E

Association of post test level of stress with their selected demographic variables among senior citizens.

Table: 4 Association of post test level of stress with their selected demographic variables among senior citizens.

n = 60

Demographic variables	High level of stress		Moderate level of stress		Low level of stress		Calculated value	Table value	Inference
	F	%	F	%	F	%			
Age in yrs									
55 – 60	-	-	1	2	1	2	0.2976	7.81 (df-3)	NS
60 – 65	-	-	-	-	1	2			
65 – 70	-	-	11	18	10	16			
70 - 75	-	-	18	30	18	30			
Sex									
Male	-	-	15	25	16	27	0.066	3.841 (df-1)	NS
Female	-	-	15	25	14	33			
Education									
Illiterate	-	-	19	32	20	33	1.025	7.81 (df-3)	NS
Primary education	-	-	8	13	8	13			
Secondary education	-	-	2	3	2	3			
Higher Secondary education	-	-	1	2	-	-			
Graduate	-	-	-	-	-	-			
Duration of residing is Old Age Home									
≤ 5 years	-	-	26	43	20	34	3.942	5.99 (df-2)	NS
5 – 10 years	-	-	3	5	5	8			
≥ 10 years	-	-	1	2	5	8			
No of children									
No children	-	-	5	8	10	17	5.554	5.99	NS
One children	-	-	8	13	12	20			

More than one children	-	-	17	28	8	13		(df-2)	
Reason for residing in old age home									
No children.	-	-	5	8	9	15			
Abuse and neglect of the child.	-	-	16	7	9	15	3.53	5.99 (df-2)	NS
Other problems	-	-	9	15	12	20			
Supportive system									
Family member	-	-	10	17	12	20			
Neighbors	-	-	4	7	2	3	23	7.81 (df-3)	S
Friends	-	-	7	11	7	11			
Nobody	-	-	9	15	9	15			
Spirituality									
Yes	-	-	59	48	59	50		3.841 (df-3)	NS
No	-	-	1	2	1	2	1.016		

(NS – not significant, S- significant

P< 0.05)

The Chi square values were calculated to find out the association between the level of stress among senior citizens with age, with sex, with education, with duration of residing in old age home, with number of children, with reason for residing in old age home, with support system, with spirituality. There is a significant association between support system ($X^2=23$) and the level of stress. It predicts that along with stress reduction techniques a good supportive system is helpful in reducing the level of stress.

Other variables like age, sex, education, reason for residing in old age home, number of children, spirituality is not associated with the level of stress.

CHAPTER – V

DISCUSSION

The discussion chapter deals with description of sample characteristics and objectives of the study. The aim of this present study was to assess the effectiveness of selected relaxation techniques to reduce the level of stress among senior citizens residing in selected old age home, at coiminator.

Description of demographic variables of senior citizens.

Distribution of senior citizens according to their age group depicted that highest percentage (60%) of senior citizens were is the age group of 70 – 75 years. This finding is supported with the study conducted by woo. Sao Paulo(2006), reported that majority (58.33%) of the senior citizens were is the age of 70 – 79 years.

Fifty two percentages of the senior citizens were male. This finding consistent with the study conducted by Sao Paulo. Saroj et.al(2007), who reported 51% of male in the old age home.

Distribution of senior citizens according to their educational status depicted that highest percentage (65%) of senior citizens were not having any formal education. This finding is not supported with the study conducted by Saroj et.al(2007), they stated that 31.61% of senior citizens were illiterate is their study.

Distribution of senior citizens according to duration of residing in old age home, depicted that there by fourth (77%) of senior citizens were residing <5 years in the old age home. This finding is consistent with a study conducted by Pinna Ron (2002) suggested that institutionalized elderly particularly first seven months of residency expressed high levels of depression, hopelessness and suicidality.

Distribution of senior citizens according to number of children depicted that majority (42%) of senior citizens were having more than one children. This finding is consistent with the study conducted by Saroj et. al(2007), stated that 35% were had large family size and 27.5% were had medium family size.

Distribution of senior citizens according to social support depicted that highest percentage of (37%) senior citizens were having social support from family members. Elsa Sanstombi Devi (2004), reported that there is a strong association between family friend relationship and perceived depressive feeling of elderly.(chi square value 10.843 at 0.05 level of significant).

Distribution of senior citizens according to reason for residing in old age home, depicted that half (50%) of senior citizens were abused and neglected by their children was the major reason for joining old age home. This finding is consistent with the statement given by Teaster, National center on elder abuse(2006), they stated that, of alleged

perpetrators of elder abuse 33% were adult children, 22% were other family members. However, Saroj et al (2007) stated majority (83.33%) were joined the institution willingly following by 66.67% who were joined because of negligence(or) rejection by their family members. Hence, the interpretation, shows that increasing trend of joining the institutions willingly shows that the senior citizens in both states don't want to be burden on others and preference of their independence.

Almost all of the (98%) senior citizens were following spiritual practices. Allen(2008),reported daily spiritual experiences were associated with better emotional health among older male inmates.

These findings are discussed under the following headings.

- Assess the pre test level of stress among senior citizens.
- Assess the post test level of stress among senior citizens.
- Compare the pre test and post test level of among senior citizens.

Associate the post test level of stress with their selected demographic variables among senior citizens.

Assess the pretest level of stress among senior citizens

The study findings are majority (78%) of the senior citizens were having moderate level of stress. However 15% of the senior citizens were having high level of stress and only 7% were having low level of stress. This study finding is consistent with the study conducted by Prabu (2006) who reported 67% of older adults had moderate stress and

20% had increased stress. However, Grace Philip(2004) who reported that 44% of older adults experienced moderate level of stress.

Assess the post test level of stress among senior citizens.

The study findings was that no one was having high level of stress, however 50% of senior citizens were reported moderate level of stress and similar percentage (50%) of senior citizens were having low level of stress. This study finding is consistent with study conducted by Arpana.G.,(2006) who reported 46.7% of older adults experienced moderate stress and 35% experienced mild stress.

Compare the pre test and post test level of stress among senior citizens.

Table 5 shows that the senior citizens mean post test stress score (49.6, I 10.09) is significantly lower than mean pre test stress score (83.25, I 1 to 75). The paired 't' values shows that there is a significant difference between pretest and post test stress scores ('t'-23,715 at <0.05). Hence the H1 is accepted.

This study finding is consistent with the study conducted by Arpana (2006) reported significant difference in mean post test stress score(47.5), with mean pre test stress score(57) after yoga therapy. Similarly, Donna Wang (2009) reported Yoga can reduce depression among older adults. And also Kimberlee Bethany stated that practicing chair yoga can reduce stress over time. However, replication with a

larger sample size is warranted in order to better understand the impact of Yoga on psychological health in older adults.

To associate the post test level of stress among senior citizens with their selected demographic values.

Chi square values were calculated to find out the association of the level of stress of senior citizens with their demographic variables. It shows that there was no association found with level of stress and demographic variables such as age ($X^2=0.2976$), sex ($X^2=0.066$), education ($X^2=1.025$), Duration of residing in old age home ($X^2=3.942$), reason for residing in old age home ($X^2=3.53$), Number of children ($X^2=5.554$) and spirituality ($X^2=1.016$), where as the demographic variable support system ($X^2=23$) was associated with the level of stress of senior citizens (Table:6), it was consistent with a statement given by Wooslton.C.,(2007). He stated that staying close to friends and family is an excellent way to cut down on stress. The reason might be having family members makes the senior citizens feel emotionally supported even in their loneliness than other variables.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATION, RECOMMENDATIONS AND LIMITATIONS

SUMMARY OF THE STUDY

The focus of the study was to assess the effectiveness of selected relaxation technique in reducing stress among senior citizens residing in selected old age home at Coimbatore. The design used for this study was one group pre test post test in nature; the conceptual frame work was based on modified Roy's adaptation model (1964). The participants were selected by purposive sampling technique and were assessed for level of stress before and after selected relaxation technique.

The data was collected to assess the level of stress by using the instruments which consist of two parts.

Part I: Demographic variables

Part II: Stress assessment rating scale

The data of demographic variables were analyzed by using descriptive statistics (frequency and percentage). Pre test and post test scores were analyzed by using descriptive statistics (mean, standard deviation, frequency percentage). The effectiveness of selected relaxation technique was assessed by using the paired "t" test. Chi square test was used to find out the association of selected demographic variables with their post test level of stress.

The study revealed that the post test stress score was significantly lower than the pre test stress score after practicing selected relaxation technique among senior citizens residing in selected old age home.

Major findings of the study

- ❖ Highest percentages (60%) of the senior citizens were in the age group of 70 -75 years.
- ❖ Most (52%) of the senior citizens were males.
- ❖ Highest percentage (65%) of the senior citizens had no formal education.
- ❖ Majority (77%) of senior citizens were residing \leq 5yrs.
- ❖ Majority 42% of senior citizens were having more than one child.
- ❖ Highest percentages of (37%) senior citizens were having social support from family members.
- ❖ Half of (50%) senior citizens were abused and neglected by the children that show the reason residing in old age home.
- ❖ Almost all the senior citizens (98%) were following spiritual practices.
- ❖ During pre test majority (78%) of senior citizens were having moderate level of stress, and 15% senior citizens were having high level of stress. In post test none of them had high level of stress, and equal percentage of senior citizens found to have

moderate and low level of stress after practicing selected relaxation technique.

- ❖ Significant association was found between post test stress score and number of children.

The study revealed that the post test stress score was significantly reduced after practicing selected relaxation technique. Findings showed that practicing selected relaxation technique such as deep breathing exercise, aerobic exercise played an important role in improving the psychological wellbeing of senior citizens residing in old age home.

CONCLUSION

The present study assessed the effectiveness of selected relaxation technique in reducing the level of stress. The results showed that 78% had moderate level of stress in pretest was reduced to 50% level of stress in post test among senior citizens. Therefore selected relaxation techniques can also be used to improve the psychological wellbeing among senior citizens residing in old age home.

IMPLICATIONS

The findings of the study have certain important implications for nursing service, education, administration and nursing research.

Nursing service

- Senior citizens must be encouraged to participate in relaxation techniques.

- Nurse as the change agent, can introduce the various relaxation techniques to improve the health status of the senior citizens.

Nursing education

- Imparting the concepts of selected relaxation technique to nursing students.
- Nursing students can utilize knowledge on selected relaxation technique to give health education in the schools, hospitals, and community.

Nursing administration

- Nursing personnel can organize continuing nursing education program on selected relaxation technique in all health sectors.

Nursing research

- This study finding can effectively be utilized by the emerging researchers.

RECOMMENDATIONS

1. A longitudinal study can be undertaken to assess the changes in biological and psychological aspect of health on practicing selected relaxation techniques
2. Comparative study can be done between the senior citizens residing in old age home and joint family
3. This similar study can be replicated on large sample there by findings can be generalized to a large population.

LIMITATION

- ❖ It was more time consuming to explain the senior citizens because of difference in their understanding.

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STRUCTURE TEACHING PROGRAMME ON SELECTED RELAXATION TECHNIQUES

GENERAL INSTRUCTIONS:

Topic	:	Selected relaxation techniques in reducing stress.
Subject	:	Senior Citizens
No. of subjects	:	30
Duration	:	Each activity 10-15 minutes
place	:	Old age home
Methods of teaching	:	Lecture cum discussion.
A.V. aids	:	C.D. Rom
Medium of Instruction	:	Tamil


CENTRAL OBJECTIVES

The senior citizens will acquire knowledge regarding selected relaxation technique and develop desirable attitude and skills is practicing selected relaxation techniques.

SPECIFIC OBJECTIVES



The senior citizens can able to



- define relaxation technique
- explain the types of relaxation technique
- list down advantages of relaxation technique
- explain the meaning of pranayama therapy.
- narrate the benefits of deep breathing..
- list down the basic instructions for breathing exercise.
- describe various techniques in pranayama therapy.
- demonstrate alternate nostril breathing.
- demonstrate ujayi pranayama
- demonstrate basthrika pranayama
- define aerobic exercise
- explain the types of aerobic exercise
- narrate the benefits of aerobic exercise.
- demonstrate aerobic exercise.

Special Objective	Content	A.V. Aids	Teaching Learning Activity
	<p style="text-align: center;">SELECTED RELAXATION TECHNIQUES</p> <p>INTRODUCTION</p> <p>The body's natural relaxation response is a powerful antidote to stress. Relaxation techniques such as deep breathing, visualization, progressive muscle relaxation, meditation, and yoga can help you activate this relaxation response. When practiced regularly, these activities lead to a reduction in your everyday stress levels and a boost in your feelings of joy and serenity. What's more, they also serve a protective quality by teaching you how to stay calm and collected in the face of life's curveballs.</p> <p>DEFINITION OF RELAXATION TECHNIQUES</p> <p>A relaxation technique (also known as relaxation training) is any method, process, procedure, or activity that helps a person to relax; to attain a state of increased calmness; or otherwise reduce levels of anxiety, stress or tension.</p>		
<p>The senior citizens able to</p> <p>define relaxation technique</p>			

Special Objective	Content	A.V. Aids	Teaching Learning Activity
explain the types of relaxation technique	<p>TYPES OF RELAXATION TECHNIQUES</p> <p>There are three major types of relaxation techniques:</p> <ul style="list-style-type: none"> • Autogenic training. This technique uses both visual imagery and body awareness to move a person into a deep state of relaxation. The person imagines a peaceful place and then focuses on different physical sensations, moving from the feet to the head. For example, one might focus on warmth and heaviness in the limbs, easy, natural breathing, or a calm heartbeat. • Progressive muscle relaxation. This technique involves slowly tensing and then releasing each muscle group individually, starting with the muscles in the toes and finishing with those in the head. • Meditation. The two most popular forms of meditation in the U.S. include Transcendental Meditation (students repeat a <i>mantra</i> -- a single word or phrase) and mindfulness meditation (students focus their attention on their moment-by-moment thoughts and sensations). • 		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
	<p>Some of the other types of relaxation techniques</p> <ol style="list-style-type: none"> 1. Yoga 2. Tai Chi 3. Music 4. Exercise 5. Meditation 6. Hypnosis 7. Massage 8. Prayer 9. Deep breathing 10. Visualization 		



Special Objective	Content	A.V. Aids	Teaching Learning Activity
list down advantages of relaxation technique	<p>ADVANTAGES OF RELAXATION TECHNIQUES</p> <ul style="list-style-type: none"> Practicing relaxation techniques can help you by slowing your heart rate, lowering your blood pressure, slowing your breathing rate, increasing the blood flow to muscles and reduce muscle tension. Other physical benefits you can gain from relaxation techniques is fewer headaches, less back pain, less anger and frustration, more energy, better concentration, better ability to handle problems and being more efficient during daily activities. Depression, Stress management 	 	


Special Objective	Content	A.V. Aids	Teaching Learning Activity
indications of breathing exercise	<p>INDICATION</p> <ul style="list-style-type: none"> ❖ Why do we have to practice breathing exercise ❖ Why Is Our Breath Fast and Shallow? <p>There are several reasons for this. The major reasons are:</p> <ol style="list-style-type: none"> 1. The increasing stress makes us breathe more quickly and less deeply. 2. We get too emotional too easily. We get excited easily, angry easily, and most of the rest of the time we suffer from anxiety due to worry. These negative emotional states affect the rate of breathing, causing it to be fast and shallow. 3. Reduced need for physical activity. leads to less need to breathe deeply, so the shallow breathing habit developed <p>scientists have known for a long time that there exists a strong connection between respiration and mental states. Improper breathing produces diminished mental ability. The corollary is true also. It is known that mental tensions produce</p>	 	



Special Objective	Content	A.V. Aids	Teaching Learning Activity
explain the meaning of pranayama therapy.	<p>restricted breathing.</p> <p>THE MEDICAL VIEWPOINT ON FAST, SHALLOW BREATHING</p> <p>Modem science agrees with the ancient yogis on the subject of shallow breathing. An editorial in the Journal of the Royal Society of Medicine suggested that fast, shallow breathing can cause fatigue, sleep disorders, anxiety, stomach upsets, heart bum, gas, muscle cramps, dizziness, visual problems, chest pain and heart palpitations.</p> <p>PRANAYAMA: THE BREATHING EXERCISES OF YOGA</p> <p>Pranayama, as traditionally conceived, involves much more than merely breathing for relaxation. The word pranayama consists of two parts: prana and ayama. Ayama means stretch, extension, expansion, length, breadth, regulation, prolongation, restraint and control and describes the action of pranayama. Prana is energy, when the self-energizing force embraces the body. When this self-</p>		


Special Objective	Content	A.V. Aids	Teaching Learning Activity
narrate the benefits of deep breathing	<p>energizing force embraces the body with extension, expansion and control, it is pranayama.</p> <p>BENEFITS OF DEEP BREATHING</p> <ul style="list-style-type: none"> ❖ Improvement in the health of the nervous system, including the brain, spinal cord, nerve centers and nerves ❖ Rejuvenation of the glands, especially the pituitary and pineal glands ❖ The lungs become healthy and powerful, a good insurance against respiratory problems. ❖ Relaxation of the mind and body ❖ The person tends to be healthy, cheerful, and strong and have good health and well being. ❖ It enhances the intellectual development. ❖ It improves the balance and equilibrium of the body. ❖ It can deal with psycho physical disease. ❖ It can help in flourishing the soul. 		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
describe the effects of deep breathing	<p>❖ It helps in gaining a strong willpower.</p> <p>EFFECTS OF DEEP BREATHING</p> <p>Biological Effects.</p> <p>❖ Relaxation of the mind and body. Slow, deep, rhythmic breathing causes a reflex stimulation of the parasympathetic nervous system, which results in a reduction in the heart rate and relaxation of the muscles. These two factors cause a reflex relaxation of the mind, since the mind and body are very interdependent. In addition, oxygenation of the brain tends to normalize brain function, reducing excessive anxiety levels.</p> <p>❖ Rejuvenation of the glands, especially the pituitary and pineal glands.</p> <p>❖ The relaxation response brings your system back into balance, deepening your breathing, reducing stress hormones, slowing down</p> <p>❖ Your heart rate and blood pressure, and relaxing your muscles.</p>		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
list down the basic instructions for breathing exercise	<p>Psychological Effects.</p> <p>Prana is the vital force (or) power. Our state of mind is closely linked to the quality of prana within. Quality of our breath influences our state of mind and vice versa. When the in-flowing breath is neutralized or joined with the out-flowing breath, then perfect relaxation and balance of body activities are realized.</p> <p>BASIC INSTRUCTIONS FOR THE BREATHING EXERCISES.</p> <ol style="list-style-type: none"> 1. Find a quiet place where you won't be distracted. If doing the exercises inside, make sure the window is open to allow plenty of fresh air into the room. 2. Sit on a chair or if you prefer, cross-legged on the floor. Sit straight. Unless your spine is erect, some of the benefits of the breathing 	 	


Special Objective	Content	A.V. Aids	Teaching Learning Activity
narrate safety of breathing exercise	<p>exercises will be lost.</p> <ol style="list-style-type: none"> 3. Breathe deeply and slowly, without strain. 4. You should do the exercises on an empty stomach. Wait at least three hours after a heavy meal, and about one and a half hours after a light snack, such as fruit. This are two reasons for this. First, a heavy meal will reduce your concentration. Second, food in the stomach causes some of your blood and oxygen supply to be diverted to the stomach for digestion. This will reduce the blood and oxygen available for directing to the brain while you are doing the breathing exercises. 5. To gain maximum benefit, do the exercises twice a day, in the early morning before breakfast, and in the early evening. It's best not to eat for about fifteen minutes after the exercises. <p>SAFETY OF BREATHING EXERCISES.</p> <p>Gunaji, author of 'Scientific and Efficient Breathing', recommends the</p>		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
desirable various techniques in pranayam therapy.	<p>following general principles:</p> <ol style="list-style-type: none"> 1. Breathing exercises should never be pushed to the point of weariness or exhaustion. 2. Exercises should not be repeated too often. 3. They should not be merely mechanical. 4. There should be no hurry or haste. 5. Attention should be concentrated on the exercise while it is being performed. 6. Exercise should always be gentle and nonviolent. 7. Breathing should not be jerky or irregular, but smooth, steady and continuous. <p>VARIOUS TECHNIQUES IN PRANAYAMA.</p> <p>The various pranayam (breathing exercise) techniques are:</p> <p>❖ Bhastrika pranayam (Bellows),</p>	 	



Special Objective	Content	A.V. Aids	Teaching Learning Activity
<p>demonstrate alternate nostril breathing.</p>	<ul style="list-style-type: none"> ❖ Anulom vilom pranayam (Alternate nostril Breathing technique), ❖ Ujjayi pranayam <p>Nadi Sodhana (Alternate Nostril Breathing) Technique</p> <ol style="list-style-type: none"> 1. Close the right nostril with your right thumb and inhale through the left nostril. Do this to the count of four seconds. 2. Immediately close the left nostril with your right ring finger and little finger, and at the same time remove your thumb from the right nostril, and exhale through this nostril. Do this to the count of eight seconds. This completes a half round. 		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
	<p>Inhale through the right nostril to the count of four seconds. Close the right nostril with your right thumb and exhale through the left nostril to the count of eight seconds. This completes one full round.</p> <p>Start by doing three rounds, adding one per week until you are doing seven rounds.</p> <p>Benefits</p> <ol style="list-style-type: none"> 1. The exercise produces optimum function to both sides of the brain, that is optimum creativity and optimum logical verbal activity. This also creates a more balanced person, since both halves of the brain are functioning properly. 2. The yogis consider this to be the best technique to calm the mind and the nervous system. 		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
<p>demonstrate ujjayi pranayama</p>	<p>Ujjayi pranayama (The "loud breathing")</p> <p>Techniques of ujjayi breath</p> <p>This consists in drawing air in through both nostrils with the glottis held partially closed. This partial closure of the glottis produces a sound like that heard in sobbing, except that it is continuous and unbroken. The sound should have a low but uniform pitch and be pleasant to hear. Friction of air in the nose should be avoided; consequently no nasal sounds will be heard. A prolonged full pause should begin, without any jerking, as soon as inhalation has been completed. Closure of glottis, use of chin lock and closure of both nostrils are standard. The period occupied by exhaling should be about twice as long as that occupied by inhaling.</p> <p>Stages In Breathing</p> <p>❖ "Breathing In", Inhaling Or Inspiration for four counts.</p>		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
	<p>The Pause, Short Or Long, Between Inhalation And Exhalation.</p> <p>(Retentive Pause And Readjustment Phase) for four counts.</p> <ul style="list-style-type: none"> ❖ "Breathing Out," Exhaling Or Expiration for six counts. ❖ The Pause, Long Or Short, Between Exhalation And Inhalation. <p>(Extensive Pause And Its Readjustment Phase) for two counts.</p> <p>3 STAGES IS PRANAYAMA:</p> <p>1 Stage - techniques:</p> <ul style="list-style-type: none"> ➤ Adopt comfortable position (either sitting or vagrashna) ➤ Place hands on the chest with thumb finger an axilla and palm facing down wards. ➤ Practice ujayi breath with pause period between inhalation and exhalation. ➤ Do this for 6 to 7 counts initially and extend the cycle after good practice. 		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
<p>demonstrate basthrika pranayama</p>	<p>Do this for 5 counts initially and extend the cycle after good practice</p> <p>Bhastrika (Bellows)</p> <p>Bhastika consists primarily in forced rapid deep breathing. Although air is forced both in and out, emphasis is placed upon expulsion or explosion of air. A series of such explosions, each following the other in quick succession without pause, either full or empty, may be called "a round." Beginners should limit a round to about five explosions, though the number may be increased to ten, or to any number needed to obtain the desired effect. The desired effects range from increased ventilation, increased blood circulation, increased clearing of nasal passages and increased thinking capacity to overwhelming pacification of all mental disturbances. A series of normal breaths should occur before undertaking a second round. A deepest possible inhalation and exhalation may, and perhaps should,</p>		


Special Objective	content	A.V. Aids	Teaching Learning Activity
	<p>introduce each round. Some nasal hissing can be expected; avoid unpleasant sound and fluttering of nasal skin surfaces.</p> <p>TECHNIQUES:</p> <ul style="list-style-type: none"> ➤ Sit in comfortable position (either lotus position or vagrashna) with spine erect. ➤ Deep the hands at the level of chest closed fingers and palm facing forward) ➤ Forced deep breathing is followed. ➤ While is halation raise the hands with than folding of fingers. ➤ Forced deep breath out with hands to be come down at the chest level. ➤ The round should consist of 5 cycles of respiration and can be extended. ➤ At a time 2 to 3 rounds can be practices. 	 	

Special Objective	Content	A.V. Aids	Teaching Learning Activity
define aerobic exercise	<p>Precaution.</p> <p>Forced breathing produce relaxation and revitalization. Excess may induce dizziness, drowsiness and diminution of consciousness. No harm can come from hyperventilation so long as you are in bed.</p> <p>AEROBIC EXERCISES</p> <p>Definition</p> <p>The American College of Sports Medicine (ACSM) defines aerobic exercise as "any activity that uses large muscle groups, can be maintained continuously, and is rhythmic in nature." It is a type of exercise that overloads the heart and lungs and causes them to work harder than at rest.</p>		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
	<p>MEANING OF AEROBIC EXERCISES</p> <p>Aerobic exercise refers to exercise that involves or improves oxygen consumption by the body. Aerobic means "with oxygen", and refers to the use of oxygen in the body's metabolic or energy-generating process.</p> <p>Many types of exercise are aerobic, and by definition are performed at moderate levels of intensity for extended periods of time. To obtain the best results, an aerobic exercise session involves a warming up period, followed by at least 20 minutes of moderate to intense exercise involving large muscle groups, and a cooling down period at the end.</p>		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
<p>explain the types of aerobic exercise</p> <p>narrate the benefits of aerobic exercise:</p>	<p>TYPES OF AEROBIC EXERCISE</p> <ul style="list-style-type: none"> • Aerobic Dance • Bicycling • Cross Country Skiing • In-line Skating • Fitness Walking • Jumping Rope • Running • Stair Climbing • Swimming <p>BENEFITS OF AEROBIC EXERCISE:</p> <ul style="list-style-type: none"> • Increased maximal oxygen consumption (VO₂max) • Improvement in cardiovascular/ cardiorespiratory function (heart and lungs) <ul style="list-style-type: none"> ○ Increased maximal cardiac output (amount of blood pumped every minute) • Increased maximal stroke volume (amount of blood pumped 		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
	<ul style="list-style-type: none"> ○ with each beat) ○ Increased blood volume and ability to carry oxygen ○ Reduced workload on the heart (myocardial oxygen consumption) for any given submaximal exercise intensity • Increased blood supply to muscles and ability to use oxygen • Lower heart rate and blood pressure at any level of submaximal exercise • Increased threshold for lactic acid accumulation • Lower resting systolic and diastolic blood pressure in people with high blood pressure • Increased HDL Cholesterol (the good cholesterol) • Decreased blood triglycerides • Reduced body fat and improved weight control <p>Improved glucose tolerance and reduced insulin resistance</p>		

Special Objective	Content	A.V. Aids	Teaching Learning Activity
demonstrate aerobic exercise	<p>PROCEDURE</p> <p>Frequency: 3-5 days per week</p> <p>Duration: 20 to 60 minutes of continuous aerobic activity</p> <p>SUMMARY: Still now we discussed about the demonstration class on pranayama therapy, how to do alternate nostril breathing, 3 stage pranayama and basthrika and also some of aerobic exercise like fogging and walking.</p> <p>CONCLUSION: The regular practice of doing breathing exercise and some aerobic exercises will help the senior citizens to ride out the stress which is imposed by several factors.</p>		

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முன்னுரை :-

உடலின் இயற்கையான தளர்வுபடுத்தும் பிரதியுத்தரம் தான் மன அழுத்தத்திற்கு சக்திவாய்ந்த எதிர்ப்பு. தளர்வுபடுத்தும் பயிற்சிகளில் சில ஆழ்மூச்சுப் பயிற்சி, தசைகளைத் தளர்வு படுத்தும் பயிற்சி, தியானம் மற்றும் யோகா பயிற்சி போன்றன இந்த தளர்வுப் பிரதியுத்தரத்தைத் தூண்டுவதற்கு உதவுகின்றன. இந்த தளர்வுப் பயிற்சிகள் முறையாக, நிரந்தரமாக பயிற்சி செய்யப்படும் பொழுது, அன்றாட வாழ்வின் மன அழுத்தத்தின் அளவை குறைக்கவும், மகிழ்ச்சி, அமைதி, தெளிவை அதிகரிக்கவும் உதவுகின்றன.

வரையறை :-

தளர்வுபடுத்தும் பயிற்சி என்பது ஏதேனும் ஒரு செய்முறை அல்லது செயல்,தேர்ந்தெடுக்கப்பட்ட நபரை தளர்வுபடுத்த உதவுகிறது. அளவுக்கு அதிகமான மனம் அமைதி நிலையை அடையவும் மற்றும் கவலை, மன அழுத்தம் அல்லது மன இறுக்கத்தை குறைக்கவும் இது உதவுகிறது.

வகைகள் :-

முக்கியமான மூன்று வகைகள்

இந்த பயிற்சி மனக்கண்முன் தோற்றுவித்தல் மற்றும் உடல் அறிவுடை நிலை இரண்டு நிலைகளையும் ஒருசேர உபயோகப்படுத்தி ஒரு நபரை ஆழ்ந்த தளர்வு நிலைக்கு கொண்டு செல்லுதல். அந்த நபர் மிக அமைதியான இடத்தை மனக்கண்முன் நிறுத்திக் கொண்டு பின்பு உடலின் வேறுபட்ட உணர்ச்சிகளில் கவனத்தை செலுத்த வேண்டும். (உள்ளங்கால் முதல் உச்சந்தலை வரை).

தசை தளர்வுப்பயிற்சி :-

இந்த பயிற்சி உடலின் ஒவ்வொரு தசைகளையும் தனித்தனியாக , மெதுவாக இறுக்கப்படுத்தி பின்பு தளர்வுபடுத்துதல் ஆகும். இந்த பயிற்சியை காலில் ஆரம்பித்து தலை வரை மேற்கொள்ள வேண்டும்.

தியானம் :-

தியானப் பயிற்சியில் பலரும் அறிந்த இரண்டு முறைகள்

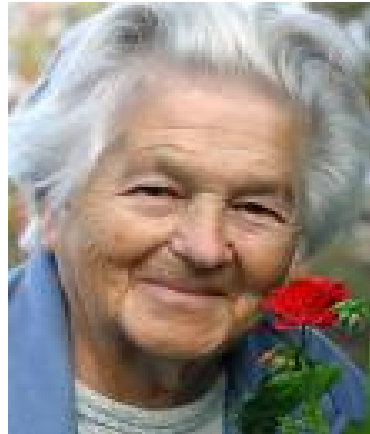
- ❖ மந்த்ரா தியானப் பயிற்சி
- ❖ மனதை ஒருமுகப்படுத்தும் (Mindfulness) தியானப் பயிற்சி

வேறு சில தளர்வுபடுத்தும் பயிற்சிகள் :-

- ❖ யோகா
- ❖ டை - கை
- ❖ இசை
- ❖ உடற்பயிற்சி
- ❖ பிராத்தனை
- ❖ ஆழ்மூச்சுப் பயிற்சி

தளர்வுப் பயிற்சியின் நன்மைகள் :-

தளர்வுப் பயிற்சியினை மேற்கொள்வதால் அதிகமான இதயத்துடிப்பைக் குறைக்கவும், அதிகமான இரத்த அழுத்தத்தைக் குறைக்கவும், சுவாசத்தின் வேகத்தைக் குறைக்கவும் முடிகிறது. துசையின் இறுக்கத்தை குறைத்து, அதிக இரத்தம் ஓட்டம் செல்லவும் இப்பயிற்சிகள் உதவுகின்றன. மேலும் தலைவலி, முதுகு வலி, கோபம் மற்றும் ஏமாற்றத்தைக் குறைக்கவும், அதிக சக்தி, செயல்திறன், நல்ல மன ஒருமை, மன அழுத்தம், மற்றும் மனத் தளர்ச்சியை எளிதான முறையில் கையாளவும் இவை உதவுகின்றன.



தளர்வுப் பயிற்சியின் முக்கியத்துவம் :-

1. நாம் ஏன் தளர்வு பயிற்சியை மேற்கொள்ள வேண்டும்?
 2. நமது சுவாசம் ஏன் வேகமாகவும், ஆழமில்லாமலும் இருக்கிறது? என்றால், இதற்கு சில காரணங்கள் உள்ளன. அவற்றுள் முக்கியமானவை.
- ❖ அதிக அளவு மன அழுத்தம் நமது சுவாசத்தை வேகமாகவும், ஆழமில்லாமலும் இருக்கச் செய்கிறது.
 - ❖ நாம் பல நேரங்களில் விரைவில் உணர்ச்சி வசப்படவும், உற்ச்சாகப்படவும், கோபப்படவும், அதிக வாய்ப்புகள் உள்ளன. மற்றும் மீதமுள்ள நேரங்களில் கவலையினால் மன விசாரம் அடைகிறோம். இந்த எதிர்மறை மனநிலை நமது சுவாசத்தை நேரடியாக பாதித்து, அது அதிகமாகவும், ஆழம் குறைந்ததாகவும் இருக்கச் செய்கிறது.
 - ❖ சரீர சம்பந்தமான செயல்களின் தேவைகள் குறைவதும் ஆழ்ந்த சுவாசத்தின் தேவையை குறைக்கிறது. பின்பு அதுவே வழக்கமாகிறது.



கடந்த பல காலங்களாக விஞ்ஞானிகள் கூட சுவாசத்திற்கும், மன நிலைக்கும் இடையே உள்ள பலமான தொடர்பைச் சுட்டிக்காட்டி உள்ளனர். ஒழுங்கற்ற சுவாசத்திறன் மனதின் செயல்திறனையும் குறைக்கிறது.

மருத்துவர்களின் கருத்து :-

நவீன கால மருத்துவமும், பண்டைய கால யோகா பயிற்சியாளர்களின் கருத்தை தரிக்கின்றது. வேகமான, ஆழமற்ற சுவாசத்தின் காரணமாக களைப்பு, கவலை, நெஞ்சு வலி, பதட்டம், வயிற்றுக் கோளாறு, மற்றும் பார்வைக் கோளாறு, மற்றும் உறக்கம் சம்பந்தப்பட்ட நோய்கள் ஏற்பட பெரும்பாலும் வாய்ப்புள்ளதாக RSOM என்ற பத்திரிக்கை குறிப்பிடுவதும் இங்கு ஒப்புநோக்கத்தக்கது.

பிரணயாமா யோகா மூச்சுப்பயிற்சி :-

பிரணயாமா மூச்சு பயிற்சி என்பது தசை தளர்வுப்பயிற்சியை விடவும் அதிகமான நன்மைகள் கொண்டது. பிரணயாமா என்பது பிராணா, மற்றும் யாமா ஆகிய இரு வார்த்தைகளை உள்ளடக்கியது. பிராணா என்பது அடிப்படைச்சக்தி. யாமா என்பது நீளுதல், பரப்புதல், பெருக்குதல் அல்லது நீட்டுதல் என்று பொருள்படும். எனவே பிராணயாமா என்பது தனக்குள் இருக்கும் சக்தியை நீட்டித்து அதிகப்படுத்தி, மனம் மற்றும் உடலை சமநிலைக்கு கொண்டு வருவதாகும்.

ஆழ்ந்த சுவாசப் பயிற்சியின் நன்மைகள் :-

1. நரம்பு மண்டலத்தின் ஆரோக்கியத்தை அதிகரிக்கிறது.
2. சுரப்பிகளை இளமையாக வைக்கிறது. (முக்கியமாக பிடியூட்டரி சுரப்பி மற்றும் ப்னியல் சுரப்பி)
3. நுரையீரல் ஆரோக்கியமாகவும், சக்திவாய்ந்ததாகவும் மாறுகிறது
4. உடல் மற்றும் மனத் தளர்வு.
5. மனிதன் ஆரோக்கியமாகவும், சந்தோசமாகவும், பலமாகவும் இருக்க உதவுகிறது.
6. புத்திக் கூர்மை அதிகரிக்க உதவுகிறது.
7. ஆத்மா அபிவிருத்தியடைய உதவுகிறது.
8. பலமான மனோதிடம் அடைய உதவுகிறது.

ஆழ்ந்த சுவாசத்தின் பயன் மற்றும் விளைவு

உடல்சார்ந்த பயன் மற்றும் விளைவு:-

- ❖ மனம் மற்றும் உடல் தளர்ச்சி. மெதுவான, ஆழ்ந்த, சீரான சுவாசம் அனிச்சை செயலாக பாரா சிம்பதெடிக் நரம்பு மண்டலத்தை தூண்டி, அதன் விளைவாக சீரற்ற இதயத்துடிப்பை குறைத்து, தசை மண்டலத்தின் இறுக்கத்தை குறைத்து தளர்வடையச் செய்கிறது. மீண்டும் இந்த இரண்டு காரணிகள் அனிச்சை செயலாக மனதை தளர்வடையச் செய்கிறது. அதனால் மனதும், உடலும் ஒன்றுடன் ஒன்று சார்புடையதாகிறது. மேலும், பிராணவாயுவின் அளவு மூளையில் கணிசமாக அதிகரிப்பதால், அது மூளையின் செயல்திறனை சாதாரண நிலைக்கு கொண்டு வந்து, அளவுக்கு அதிகமான கவலை, கோபத்தைக் குறைக்கிறது.
- ❖ சுரப்பிகளை இளமையாகவும் சுறுசுறுப்பாகவும் வைக்கிறது.
- ❖ தளர்வு பிரதிபலிப்பு நமது தேக மண்டலத்தை சமநிலைக்கு திரும்ப கொண்டு வருகிறது மற்றும் சுவாசத்தை ஆழப்படுத்துகிறது. மன அழுத்தத்திற்கான ஹார்மோன்களின் அளவை குறைக்கிறது இதயத்துடிப்பு, மற்றும் இரத்த அழுத்தத்தை குறைத்து தசை நார்களை தளர்வடையச் செய்கிறது.

மனம் சார்ந்த பயன் மற்றும் விளைவு :-

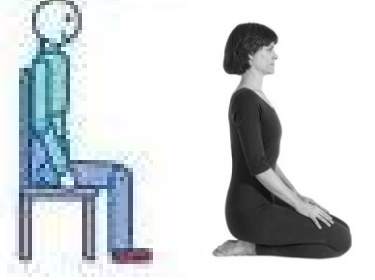
பிராணா இது நமது உடலினுள் இருக்கும் அடிப்படைச் சக்தி. நமது மனம். பிராணாவின் பண்புடன் நெருங்கிய தொடர்புடையது. நமது உள்ளிளுக்கும் சுவாசத்தின் பண்பு, மனதின் நிலையை நேரிடையாக பாதிக்கிறது. இதுவே மறுதலையாகவும் நேரிடுகிறது. நமது உள்ளிளுக்கும் சுவாசம், வெளிவிடும் சுவாசத்தோடு நடுநிலையாக்கப்படும் பொழுது பூரணமான தளர்வுநிலை மற்றும் சரீர செயல்களின் சமநிலையை உணர முடிகிறது.

மூச்சுப்பயிற்சியின் அடிப்படை குறிப்புகள் :-

இடையூறு இல்லாத அல்லது அமைதிய இடம் ஒன்றை தேர்வு செய்ய வேண்டும். அறையின் உட்புறமாக பயிற்சி மேற்கொண்டால் ஜன்னல் கதவுகளை திறந்து வைத்து சுத்தமான காற்று உள்ளே வரும்படி செய்ய வேண்டும்.



நாற்காலி அல்லது சுகானத்தில் அமர வேண்டும். முதுகுத் தண்டுவடம் நேராக இருக்க வேண்டும். இல்லாவிட்டால் ஆழ்சுவாசப் பயிற்சியின் நன்மைகள் குறையும்.



மூச்சினை உள்ளிழுக்கும் பொழுதும் வெளியேற்றும் பொழுதும் அளவுக்கு மீறி தசை இழுபடுவதை குறைத்துக் கொள்ளவும்.

பயிற்சி செய்யும் பொழுது வயிறு காலியாக இருக்க வேண்டும். உணவு அருந்தியிருந்தால் 3 மணி நேரமும் சிற்றுண்டி அருந்தியிருந்தால் 1 ½ மணி நேரமும் கழித்து பயிற்சி மேற்கொள்ள வேண்டும். காரணம் என்னவென்றால் அதிக உணவு கவனச்சிதறலை அதிகரிக்கும். மற்றொரு காரணம் இரத்த ஓட்டம் முழுவதுமாக வயிற்றுக்கே சென்றுவிடும். இதனால் இரத்தம் மூளைக்கு செல்வது குறைகிறது இதனால் பிராண வாயுவின் அளவும் குறைகிறது.

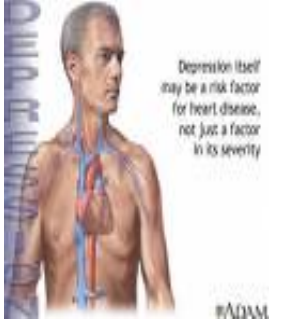


அதிகபட்ச பயன்களை அடைய இந்த பயிற்சியை ஒரு நாளைக்கு இரண்டு முறை மேற்கொள்ள வேண்டும். அதிகாலையில், காலை உணவிற்கு முன்பும், இளமாலைப் பொழுதிலும் மேற்கொள்ள வேண்டும். பயிற்சிக்கு 15 நிமிடங்களுக்கு பின்பு தான் உணவு அருந்த வேண்டும்.

மூச்சுப்பயிற்சியின் போது மேற்கொள்ள வேண்டிய பாதுகாப்பு நடவடிக்கைகள் :-

சைன்டிக் அண்டு எ/பிசியன்ட் பிரீத்திங் என்ற நூலை எழுதியவரான குணாஜி, பரிந்துரைக்கையில்,

- ❖ மூச்சுப்பயிற்சி நம்மை சோர்வடையச் செய்யும் விதத்தில் அமையக் கூடாது.
- ❖ அடிக்கடி பயிற்சிகள் செய்யக் கூடாது.
- ❖ இயந்திரக்கதியில் இருக்கக்கூடாது.
- ❖ அவசரமாக செய்தல் கூடாது.
- ❖ பயிற்சி மேற்கொள்ளும் போது கவனம் சிதறக் கூடாது.
- ❖ பயிற்சியை கடுமையாக மேற்கொள்ளக் கூடாது.
- ❖ ஒழுங்கற்ற, தொடர்ச்சியற்ற, நிலையற்ற விதத்தில் மூச்சுப்பயிற்சி இருக்கக் கூடாது. மூச்சு சீராக, சுலபமாக தொடர்ச்சியாக இருக்க வேண்டும் என வலியுறுத்துகிறார்.



ப்ராணயாமாவின் பல்வேறு முறைகள் :-

- ❖ அணுலோமம் விலோம் ப்ராணயாமா (நாடி சோதனா (அ) நாடி சுத்தி)
- ❖ உஜ்ஜாயி ப்ராணயாமா
- ❖ பாஷ்திரிகா ப்ராணயாமா

நாடி சோதனா (அ) நாடி சுத்தி

1. வலது நாசியை வலது கையின் கட்டை விரலால் மூடிக்கொண்டு, இடது நாசியால் சுவாசத்தை 4 வினாடிகளுக்கு உள்ளிடுக்க வேண்டும்.
2. உடனடியாக இடது நாசியை, வலது கையின் மோதிரவிரல் மற்றும் சுண்டு விரலால் மூடிக்கொண்டு, வலது கையின் கட்டை விரலை, வலது நாசியில் இருந்து எடுக்க வேண்டும். பின்பு வலது

நாசியின் வழியாக மூச்சை 8 வினாடிகளுக்கு வெளியேற்ற வேண்டும். இங்கு ஒரு சுற்றின் பாதி முடிவடைகிறது.

3. வலது நாசியின் வழியாக மூச்சை 4 வினாடிகளுக்கு உள்ளிழுக்க வேண்டும். பின்பு வலது நாசியை வலது கையின் கட்டை விரலால் மூடிக் கொண்டு இடது நாசியின் வழியாக மூச்சை வெளியேற்ற வேண்டும். இதனை 8 வினாடிகளுக்கு செய்ய வேண்டும். இதனால் ஒரு முழுச் சுற்று முடிவடைகிறது.



முதலில் மூன்ற சுற்றுகள் வீதம் ஆரம்பித்து, வாரத்திற்கு ஒரு சுற்று அதிகப்படுத்தி 7 சுற்றுகள் வரை செய்ய வேண்டும்.

பயன்கள்

மூளையின் இருபக்க செயல்பாடுகளும் சமநிலையில் இருக்க உதவுகிறது.

உஜ்ஜாயி ப்ராணயாமா

முறைகள்

முதுகுத்தண்டுவடத்தை நேராக்கிக் கொண்டு நாற்காலியிலோ அல்லது சகாசனத்திலோ அமர வேண்டும்.

மூச்சை மெதுவாக முழுவதும் உள்ளிழுத்து அடக்கிக் கொள்ள வேண்டும். இரண்டு மூக்குத் துவாரங்கள் மூலமாக மெதுவாகக் காற்றை உள்ளிழுக்க வேண்டும். உள்ளே நுழையும் காற்றை மேல் வாய் உணர வேண்டும். மூச்சை வெளியேற்றும் போது தொண்டையின் அடிபாகத்தில் இருக்கும் "கிளோட்டிஸ்" என்ற பகுதியை பாதி அடைத்துக் கொண்டு "உஸ்" என்ற சப்தத்தை தொண்டையில் ஏற்படுத்த வேண்டும். இவ்வாறு செய்யும் போது கழுத்தை முன்னே வளைத்து சிரமமின்றி மூச்சு வெளியேறும்படி செய்ய வேண்டும்.

மூச்சை வெளியேற்றும் பொழுது கவனிக்கப்பட வேண்டியது:-

தலைப்பகுதியை தளர்த்திக் கொள்ள வேண்டும். தொண்டைக்குக் கீழ்ப் பகுதியில் காற்று அடைந்திருப்பதாக உணரவும். மூச்சை மெதுவாக இரு நாசி துவாரங்களின் வழியாகவும் தொடர்ச்சியாக வெளியே விடவேண்டும். "கிளோட்டிஸ்" என்ற பகுதியை பாதி அடைத்துக் கொண்டு "உஸ்" என்ற ஒலியை உயர்த்தி மூச்சை வெளியே விட்டுக் கொண்டு தடையைத் தளர்க்கவும். இது ஒரு சுற்றாகும். இந்த சுற்றை 5 எண்ணிக்கை வரை திரும்பச் செய்ய வேண்டும்.

சுவாசித்தலின் நிலைகள்

- நான்கு முறை மூச்சை உள்ளிழுக்கவும்.
- நான்கு முறை மூச்சை வெளிவிடவும்.
- மூச்சு உள்ளிழுத்தலுக்கும், வெளியிடுவதற்கும் இடைப்பட்ட இடைவெளி.(நீண்டதாகவோ, குறைவானதாகவோ இருக்கலாம்)

ப்ராணாயாமா வின் மூன்று நிலைகள் :-

முதல் நிலை முறைகள் :-

- நாற்காலியிலோ அல்லது வஜ்ராசனத்திலோ பயிற்சிக்கு ஏதுவாக அமர வேண்டும்.
- இருகைகளையும் மார்புக்கு நேராக வைத்து இரு கையின் கட்டைவிரலும் அக்குல் பகுதியில் வைத்து உள்ளங்கை கீழ்நோக்கியவாறு இருக்க வேண்டும்.
- உஜ்ஜாய் மூச்சு பயிற்சியை மேற்கொள்ள வேண்டும்
- இதனை ஆறிலிருந்து ஏழு முறைவரை செய்யலாம்.



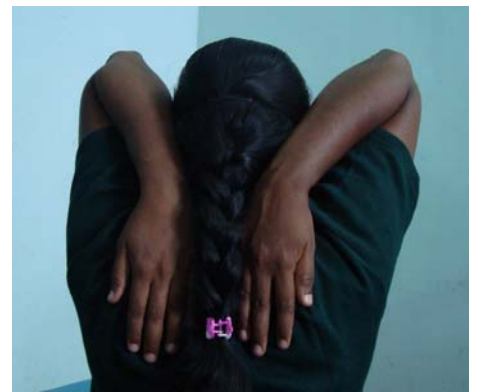
இரண்டாம் நிலை :-

- முதல் நிலை முடித்து ஓய்வெடுக்கவும்.
- இரண்டாம் நிலைக்கு இரு கையின் கட்டை விரலும் இடுப்பு எலும்பின் மீது வைத்து உள்ளங்கை கீழ்நோக்கியவாறு இருக்க வேண்டும்.
- உஜ்ஜாய் மூச்சு பயிற்சியை மேற்கொள்ள வேண்டும்
- இதனை ஆறிலிருந்து ஏழு முறைவரை செய்யலாம்.



மூன்றாம் நிலை :-

- இரண்டாம் நிலை முடித்து ஓய்வு எடுக்கவும்.
- மூன்றாம் நிலையின் போது இருகையின் உள்ளங்கைகளும் முதுகின் தோள்பட்டை எலும்பை தொட்டவாறு இருக்க வேண்டும் மற்றும் கையின் உட்பகுதி காதுப்பகுதியை தொட வேண்டும்.
- உஜ்ஜாய் பயிற்சி செய்யவும்.



- இதை 5 முறை ஆரம்பத்தில் செய்யவும். பிறகு அதிகப்படுத்தலாம்.

பஷ்ட்ரிகா முறை :-

பஷ்ட்ரிகாவின் அடிப்படை, காற்றை மெதுவாக, ஆழமாக உள்இழுத்தலும், வேகமாக வெளிவிடுதலும் ஆகும். இவ்வகையில், காற்றை சுவாசித்தல் ஒரு சுற்றாகும். புதிதாக செய்பவர்கள் ஐந்து முறை செய்யலாம். பின்பு 10 எண்ணிக்கை வரை சுற்றை அதிகப்படுத்தலாம். இரண்டாம் சுற்றை தொடங்குவதற்கு முன்பு சாதாரண சுவாசத்தை எடுக்க வேண்டும்.

பயிற்சியின் நன்மைகள்:

- மேம்பட்ட சுவாசம்
- அதிக இரத்த ஓட்டம்
- அதிகமாக சிந்திக்கும் திறன்

முறைகள் :-

- ❖ ஏதுவாக உட்காரவும் (வஜ்ராசனம் அல்லது நாற்காலியில்).



- ❖ கையை பிரம்ம முத்திரையில் வைத்து விரல்களை மடக்கி மார்புக்கு நேராக வைக்க வேண்டும்.



- ❖ ஆழ் மூச்சுப் பயிற்சியை செய்யவும்.
- ❖ மூச்சை உள்ளிழுக்கும் பொழுது கைகளை மேலே உயர்த்த வேண்டும்.
- ❖ மூச்சை வெளியே விடும்போது கையை கீழே விடவும்.
- ❖ 5 முறை மூச்சுப் பயிற்சி செய்யவும்.



❖ ஒரே நேரத்தில் இரண்டு முதல் மூன்று சுற்றுகள் வரை செய்யலாம்.

முன்னெச்சரிக்கை :-

இப்பயிற்சி அமைதியைக் கொடுக்கும், சக்தியை திரும்பப் பெறச் செய்யும். அதே நேரம் அதிகப்படியான பயிற்சி, சோர்வை ஏற்படுத்தும். அவ்வாறு இருக்கும் பொழுது சிறிது நேரம் ஓய்வெடுக்க வேண்டும்.

ஏரோபிக் உடற்பயிற்சிகள் :-

வரையறை :-

அமெரிக்கன் காலேஜ் ஆஃப் ஸ்போர்ட்ஸ் மெடிசின் (ACSM) ஏரோபிக் உடற்பயிற்சியை இவ்வாறு வரையறுக்கிறது.

“எந்தவொரு செயல் பெரிய தசைத் தொகுப்பை தொடர்ச்சியாக , சீராக உபயோகப்படுத்துகிறதோ , அதுவே ஏரோபிக் உடற்பயிற்சி ஆகும். இந்த உடற்பயிற்சி இருதயத்தையும் , நுரையீரலையும் ஓய்வு நிலையில் இருப்பதை விட அதிகமாக வேலை செய்ய வைக்கிறது.

ஏரோபிக் உடற்பயிற்சிகள் பொருள் :-

ஏரோபிக் உடற்பயிற்சி , சரீரத்தில் பிராணவாயுவின் உபயோகம் அதிகப்படுத்துவதை குறிக்கிறது. ஏரோபிக் என்பதன் பொருள் “பிராண வாயுவுடன்” மற்றும் இது பிராண வாயுவை உடலின் சக்தி உருவாக்கும் வேலைகிரமத்தைக் குறிக்கிறது.

அநேக உடற்பயிற்சிகள் ஏரோபிக் வகையைச் சார்ந்தவையே. மிகச் சிறந்த பலனை பெருவதற்கு ஏரோபிக் உடற்பயிற்சியை ஊக்கமூட்டும் தேகப்பயிற்சியை தொடர்ந்து குறைந்த பட்சம் 20 நிமிடங்களுக்கு பெரிய தசைத் தொகுப்பை உபயோகப்படுத்தி , மேற்கொள்ள வேண்டும் முடிவில் சாந்தமாக்கும் (Cooling - down) பயிற்சி செய்ய வேண்டும்.

ஏரோபிக் உடற்பயிற்சியின் வகைகள்:

- ஏரோபிக் நடனம்
- துவிச்சக்கர வண்டி ஓட்டுதல்
- விரைவு நடைப் பயிற்சி
- ஓட்டப் பயிற்சி
- நீச்சல் பயிற்சி

ஏரோபிக் உடற்பயிற்சியின் பயன்கள்:

- பிராண வாயுவின் உபயோகத்தை அதிகப்படுத்துகிறது.
- இருதயம் மற்றும் நுரையீரலின் செயல் திறனை அதிகப்படுத்துகிறது.
- இருதயத்திலிருந்து வெளியேறும் இரத்தத்தின் அளவை அதிகரிக்கிறது.
- இரத்தத்தின் பிராணவாயு எடுத்து செல்லும் அளவை அதிகரிக்கிறது.
- இருதயத்தின் வேலைப் பளுவை குறைக்கிறது.
- இரத்தத்தில் நல்ல கொழுப்பின் அளவை அதிகரிக்கிறது
- உடலின் கொழுப்பை குறைத்து, எடையை குறைக்கிறது

செயல்முறை விளக்கம்:



ஏரோபிக் உடற்ப் பயிற்சி

வாரத்திற்கு 3 முறை 20 - 60 நிமிடங்கள் ஏரோபிக் உடற்பயிற்சி செய்ய வேண்டும்.

STRUCTURED INTERVIEW SCHEDULE

PART-I

DEMOGRAPHIC VARIABLES

1. Age (in years)

a. 55 - 60

b. 60 - 65

c. 65 - 70

d. 70 - 75

☐

2. Sex

a. Male

b. Female

☐

3. Education

a. Illiterate

b. Primary education

c. Secondary education

d. Higher secondary education

e. Graduate

☐

4. Duration of residing in old age home (in years)

a. ≤ 5

b. 5-10

c. ≥ 10

☐

5. Number of children

a. No children

b. One children

c. More than one

☐

6. Reason for residing in old age home

- a. No Children
- b. abuse & neglect of the children
- c. Other problems.

☐

[†]
7. Supportive System

- a. Family members
- b. Neighbours
- c. friends
- d. No one

☐

8. Spirituality

- a. Yes
- b. No

☐

PART-II

MODIFIED STRESS ASSESSMENT RATING SCALE

The rating scale consists of two sections

Section A: Assessing the stressors

Section B: Assessing the symptoms of stress

S.No	Content	Never 0	Some times 1	Very often 2	Always 3
	Section A: Assessing the stressors				
1.	Having Generalized pain and discomfort cause distress.				
2.	Feeling distressed of limitations of activities imposed by aging.				
3.	Having inadequate sleep because of worries.				
4.	Feeling distressed of getting inadequate medical facilities.				
5.	Changes in hearing cause distress.				
6.	Changes in vision cause distress.				
7.	Unable to enjoy food because of tooth loss causes distress.				
8.	Having memory deficit because of aging cause distress.				
9.	Dependencies on others cause distress.				
10.	Feeling lonely cause distress				
11.	Limited social interactions cause distress.				

S. No	Content	Never	Some times	Very often	Always
12.	Unable to achieve the things I want out of the life cause distress.				
13.	Feeling the changes in family responsibility produce distress.				
14.	Feeling the separation from family and friends cause distress.				
15.	Feeling distressed because of difficult to pay Hospital medication expenses and other expenses.				
	Section B: Assessing the symptoms of stress				
I	Physical Symptoms				
16.	Palpitation				
17.	Shortness of breath				
18.	Head ache				
19.	Problems in getting sleep.				
20.	Loss of interest in taking food				
21.	Constipation				
22.	Difficulty in moving				
23.	Frequent illness				
II	Emotional Symptoms				
24.	Anger, irritability				
25.	Anxiety, Panic, Fearful				
26.	Depressed ,sad				
27.	Feel strong dependency need				
28.	Helpless				

S.No	Content	Never	Some times	Very often	Always
29.	Hopelessness				
30.	Blaming others				
31.	Unworthy				
32.	Guilt				
33.	Impatient				
34.	Frustrated				
35.	Lack of Interest				
36.	Feel inadequacy				
37.	Crying				
III	Mental Symptoms				
38.	Negative thinking				
39.	Disorganized thinking				
40.	Lack of Concentration/ attention				
	Obsessive thinking				
41.	Worry				
42.	Decision making difficulties				
43.	Difficulties remembering things				
44.	Behavioral Symptoms				
IV	Lack of Close relationship				
45.	Low trust				
46.	Social withdrawal				
47.	Poor self - esteem				
48.	Dull and Boring				
49.	Compelling an unwilling				
50.	person to do something				

SCORE

LOW LEVEL OF STRESS : 0 - 50
 MODERATE LEVEL OF STRESS : 51 - 100
 HIGH LEVEL OF STRESS : 101 - 150

வரையறுக்கப்பட்ட நேர்காணல் அட்டவணை

பகுதி - "அ" சுயகுறிப்பு விவரங்கள்

1) வயது (வருடங்களில்)

அ) 55 - 60

ஆ) 60 - 65

இ) 65 - 70

☐

2) பாலினம்

அ) ஆண்

ஆ) பெண்

☐

3) கல்வித்தகுதி

அ) படிக்காதவர்

ஆ) ஆரம்பநிலைக்கல்வி

இ) தொடக்கநிலைக்கல்வி

ஈ) மேல்நிலைக்கல்வி

உ) பட்டதாரி

☐

4) முதியோர் இல்லத்தில் இருப்போர் கால அளவு (வருடங்களில்)

அ) ≤ 5

ஆ) 5-10

இ) ≥ 10

☐

5) குழந்தைகள்

அ) குழந்தை இல்லை

ஆ) ஒன்று

இ) ஒன்றுக்கும் அதிகமான

☐

6) முதியோர் இல்லத்தில் இருப்பதன் காரணம்

அ) குழந்தையின்மை

ஆ) குழந்தைகளால் ஒதுக்கப்படுதல்

இ) மற்ற காரணிகள் / பிரச்சனைகள்

☐

7) சமூக ஆதரவு

அ) குடும்பத்தினர்

ஆ) அண்டை வீட்டார் / அருகாமையில் உள்ளோர்

இ) நண்பர்கள்

ஈ) ஒருவரும் இல்லை

☐

8) ஆன்மீகம்

அ) ஆம்

ஆ) இல்லை

☐

பகுதி - "ஆ"

திருத்தப்பட்ட மன அழுத்தத்தை மதிப்பிடும் தர அளவுகோள் :-

இது இரண்டினை உள்ளடக்கியது.

பிரிவு - அ : மன அழுத்தத்தின் காரணிகளை மதிப்பிடுதல்

பிரிவு - ஆ : மன அழுத்தத்தின் அறிகுறிகளைக்
மதிப்பிடுதல்

வ. எண்.	பகுதி	இல்லை	சில நேரங்களில்	அடிக்கடி	எப்போதும்
		0	1	2	3
பகுதி - அ					
1.	சாதாரண வலியால் ஏற்படும் பிரச்சனைகள்				
2.	வயதானதால் தடை செய்யப்படும் சில நடவடிக்கைகள்				
3.	அதிக கவலைகள் காரணமாக சரியான தூக்கமின்மை				
4.	சரியான மருத்துவ வசதிகள் செய்து கொள்ள இயலாமை				
5.	கேட்கும் திறனில் மாற்றம் ஏற்படுவதால் உண்டாகும் மன அழுத்தம்				
6.	பார்வை திறனில் மாற்றம் ஏற்படுவதால் உண்டாகும் மன அழுத்தம்				
7.	பற்களை இழந்ததால் விருப்பமான உணவு எடுத்துக்கொள்ள இயலாமை				
8.	வயதான காரணத்தினால் மறதி ஏற்படுதல்				
9.	அடுத்தவர்களை சார்ந்திருப்பது				
10.	தனிமையாக இருப்பதாக உணர்தல்				
11.	சமுதாயத்துடன் ஒன்றுசேர இயலாமை				
12.	தன்னால் செய்ய முடியாத தனது விருப்பங்கள்				
13.	குடும்ப பொறுப்புகள் கை மாறுவது				
14.	குடும்பத்தினர், நண்பர்களிடமிருந்து விலகுவது போல் ஓர் உணர்வு				
15.	மருத்துவச் செலவு மற்றும் இதர செலவுகள் செய்ய இயலாமை				

பகுதி - ஆ

I) உடல்நீதியான அறிகுறி :-

16.	இதயத் துடிப்பில் மாற்றம்				
17.	சுவாசித்தலில் மாற்றம்				
18.	தலைவலி				
19.	உறக்கம் ஏற்படுவதில் பிரச்சனைகள்				
20.	உணவில் விருப்பமின்மை				
21.	மலச்சிக்கல்				
22.	இயக்கத்தில் தடை/கடினம்				
23.	அடிக்கடி நோய்வாய்ப்படுதல்				

II) உணர்வுநீதியான அறிகுறி :-

24.	கோபம், எளிதில் கோபப்படுதல்				
25.	கவலை, பயம்				
26.	சோகம்				
27.	தேவைகளுக்கு சார்ந்திருப்பது				
28.	உபயோகமற்ற நிலை				
29.	நம்பிக்கையின்மை (தன்னிடம்)				
30.	அடுத்தவர்களை குறைகூறுதல்				
31.	மதிப்பற்று இருத்தல்				
32.	குற்றமுள்ளதாக உணர்தல்				
33.	பொருமையற்ற நிலை				
34.	ஏமாற்றம்				
35.	விருப்பம்/ஆர்வமின்மை				
36.	பற்றாக்குறையாக உணர்தல்				
37.	அழுகை				

III) மனநீதியான அறிகுறி :-

38.	எதிர்மறை எண்ணங்கள்				
39.	ஒழுங்கற்ற சிந்தனைகள்				
40.	கவனமின்மை				
41.	எண்ணங்கள் திரும்ப திரும்ப வருதல்				

42.	கவலை				
43.	முடிவெடுத்தலில் சிரமம்				
44.	ஞாபகப்படுத்த இயலாமை				
IV) நடத்தையில் அறிகுறிகள் :-					
45.	உறவுகளுடன் நெருக்கமின்மை				
46.	நம்பிக்கையின்மை (மற்றவர்களிடம்)				
47.	சமுதாயத்திலிருந்து விலகுதல்				
48.	சுயமதிப்பு இல்லாமை				
49.	வெறுப்படைதல்				
50.	விருப்பமில்லாதவர்களை கட்டாயப்படுத்துதல்				

மதிப்பு :-

குறைந்த அளவு மன அழுத்தம்	:	0 - 50
மிதமான அளவு மன அழுத்தம்	:	51 - 101
அதிக அளவு மன அழுத்தம்	:	101 - 150